R E P O R T  R E S U M E S

ED 013 197 RE 000 388

INTERNATIONAL READING ASSOCIATION CONFERENCE PROCEEDINGS REPORTS ON ELEMENTARY READING.

BY- HARRIS, LARRY A.
INDIANA UNIV., BLOOMINGTON, ERIC CH. ON READING

REPORT NUMBER ERIC-CRIER-VOL-1-BIBLIOGR-4 PUB DATE OCT 67
EDRS PRICE MF-$4.25 HC-$45.48 1137P.

DESCRIPTORS- *ANNOTATED BIBLIOGRAPHIES, *ELEMENTARY GRADES, *READING, READING PROGRAMS, TEACHER EDUCATION, READING MATERIALS, GROUPING (INSTRUCTIONAL PURPOSES), READING SKILLS, READING READINESS, LINGUISTICS, CULTURALLY DISADVANTAGED, CONTENT READING, BILINGUAL STUDENTS, READING DIFFICULTY, EARLY READING, INDIANA UNIVERSITY SCHOOL OF EDUCATION

THE IMPORTANT PAPERS PUBLISHED IN THE YEARLY CONFERENCE PROCEEDINGS OF THE INTERNATIONAL READING ASSOCIATION IN ELEMENTARY READING SINCE 1960 ARE LISTED WITH ANNOTATIONS, AND THE COMPLETE TEXT OF EACH PAPER IS PROVIDED. THE 345 PAPERS ARE PRESENTED WITHIN THE FOLLOWING CATEGORIES--(1) THE OBJECTIVES AND GOALS IN READING, (2) READING PROGRAMS, (3) TEACHER EDUCATION, (4) READING MATERIALS, (5) METHODS AND GROUPING, (6) READING SKILLS, (7) EARLY READING INSTRUCTION, (8) PRE-SCHOOL READING, (9) READING READINESS, (10) READING IN THE CONTENT AREAS, (11) READING AND THE BILINGUAL CHILD, (12) FIRST-GRADE READING, (13) LINGUISTICS AND READING INSTRUCTION, (14) READING AND THE DISADVANTAGED, (15) READING IN OTHER COUNTRIES, AND (16) THE DIAGNOSIS AND TREATMENT OF READING DIFFICULTY. THIS BIBLIOGRAPHY SHOULD BE USEFUL TO PRACTITIONERS AND RESEARCHERS INTERESTED IN ELEMENTARY READING. AN AUTHOR INDEX IS INCLUDED. (BK)

RE 000 388

ERIC/CRIER READING REVIEW SERIES

Volume I

Bibliography 4

ED013197

# International Reading Association Conference Proceedings Reports on Elementary Reading

Larry A. Harris
Indiana University

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

The ERIC Clearinghouse on Retrieval of Information and Evaluation on Reading is a national clearinghouse which collects, organizes, analyzes, and disseminates significant research, information, and materials on reading to teachers, administrators, researchers and the public. ERIC/CRIER was established as a joint project of the International Reading Association and Indiana University in cooperation with the Educational Resources Information Center of the USOE. The Clearinghouse is part of a comprehensive information system being developed for the field of education.

October, 1967

The ERIC/CRIER Reading Review Series has been created to disseminate the information analysis products of the Clearinghouse. Analysis of information can take place on a broad continuum ranging from comprehensive reviews of the state of the knowledge in a given area to bibliographies of citations on various topics. Four genres of documents appear in the Reading Review Series. The first type includes bibliographies, with descriptive abstracts, developed in areas of general interest. The second type consists of bibliographies of citations, or citations and abstracts, developed on more specific topics in reading. The third type provides short, interpretive papers which analyze specific topics in reading using the existing information collection. The final genre includes comprehensive state-of-the-art monographs which critically examine given topics in reading over an extended period of time.

International Reading Association Conference Proceedings Reports on Elementary Reading provides a listing of the important papers on the topic of elementary reading which have been published in the yearly conference proceedings of the Association since 1960. Published proceedings for the following years have been utilized.

1. New Frontiers in Reading, International Reading Association Conference Proceedings, Vol. 5, 1960.

2. Changing Concepts of Reading Instruction, International Reading Association Conference Proceedings, Vol. 6, 1961.

3. Challenge and Experiment in Reading, International Reading Association Conference Proceedings, Vol. 7, 1962.

4. Reading as an Intellectual Activity, International Reading Association Conference Proceedings, Vol. 8, 1963.

5. Improvement of Reading through Classroom Practice, International Reading Association Conference Proceedings, Vol. 9, 1964.

6. Reading and Inquiry, International Reading Association Conference Proceedings, Vol. 10, 1965.

7. Vistas in Reading, International Reading Association Conference Proceedings, Vol. 11, Part 1, 1966.

8. Combining Research Results and Good Practice, International Reading Association Conference Proceedings, Vol. 11, Part 2, 1966.

9. The Individualized Reading Program: A Guide for Classroom Teachers, International Reading Association Conference Proceedings, Vol. 11, Part 3, 1966.

All papers which discussed topics on elementary reading were collected and reviewed. After analysis, 345 papers were selected for inclusion. A descriptive annotation was prepared by advanced graduate students for each entry. The title of the entry and the annotation indicate the major emphasis of the paper. The papers are indexed under sixteen categories.

I. Objectives and Goals in Reading

II. Reading Programs

III. Teacher Education

IV. Reading Materials

V. Methods and Grouping

VI. Reading Skills

VII. When Should Reading Instruction Begin?

VIII. Pre-School Reading

IX. Reading Readiness

X. First Grade Reading

XI. Reading in the Content Areas

XII. Reading and the Bilingual Child

XIII. Linguistics and Reading Instruction

XIV. Reading and the Disadvantaged

XV. Reading in Other Countries

XVI. Diagnosis and Treatment of Reading Difficulty

The bibliography is organized in three parts. Part I consists of a citation bibliography with brief annotations. This section is numbered consecutively from 1 through 345. Part II is keyed to Part I and contains the complete text for each entry. If the user is interested in more information than that given in the brief annotation and citation for study 150, for example, in Part I, he can turn to number 150 in Part II and read the complete report. Part III consists of a complete author index for the bibliography.

(Appreciation is expressed to Margaret Burd and Mary Rinehart for their aid in compiling the bibliography.)

Part I

## I. OBJECTIVES AND GOALS IN READING

1. Artley, A. Sterl. "The Teaching of Reading in the Intermediate Grades," Challenge and Experiment in Reading, 7, (1962), 36-38.

   Approaches reading in grades four through six by considering instructional goals, reading and the language arts, critical reading, and personal development.

2. Bamman, Henry A. "Developing More Effective Readers," Vistas in Reading, 11, Part 1, (1966), 59-62.

   Describes six criteria of an effective reader.

3. Barton, Allen. "Beliefs and Practices of Teachers in Elementary Reading," Challenge and Experiment in Reading, 7, (1962), 172-176.

   Sampled over 300 public elementary schools in the United States to discover characteristics of reading programs, materials, practices, opinions and pupil performance.

4. Boehm, Charles H. "Reading Today for Living in the 1980's," Reading as an Intellectual Activity, 8, (1963), 20-26.

   Urges educators to gear their present reading programs to meeting the challenge of the 80's, 'Free Time.'

5. Cutts, Warren. "New Approaches to Reading for Young Children," Reading as an Intellectual Activity, 8, (1963), 39-43.

   Discusses the three areas of fermentation in reading today: reading at a younger level, return to past practices, and re-examination of instruction and methods.

6. Durr, William K. "Types of Activities in a Well Balanced Program," Reading and Inquiry, 10, (1965), 130-131.

   Suggests that a well balanced reading program includes skill development and content reading.

7. Heilman, Arthur W. "Moving Faster Toward Outstanding Instructional Programs," Vistas in Reading, 11, Part 1, (1966), 273-276.

   Reiterates that outstanding reading instruction programs are not arrived at by seeking panaceas, new materials, and new approaches, but by using knowledge of pupil learning and reading and its relation to all school learning.

8. Hook, J. N. "Project English Attacks Curriculum Problems," Reading as an Intellectual Activity, 8, (1963), 261-263.

Summarizes a 1962 federal project aimed at improving English teaching on all grade levels.

9. Iverson, William J. "Controversial Issues in the Teaching of Reading," Challenge and Experiment in Reading, 7, (1962), 210-213.

Discusses important controversial issues in Reading: content, vocabulary, methods, beginning age, comprehension, word analysis, and phonics.

10. Ramsey, Wallace Z. "Organizing to Care for Individual Differences," Vistas in Reading, 11, Part 1, (1966), 143-145.

Emphasizes that innovations in education is a necessity and not a luxury.

11. Smith, Nila Banton. "An Evaluation of Reading in American Schools," Challenge and Experiment in Reading, 7, (1962), 179-190.

Offers an overview of reading in the United States in 1962: clinical activities, literature, automated teaching, and criticisms.

12. Sperling, Florence. "Building a Developmental Reading Program," Improvement of Reading Through Classroom Practices, 9, (1964), 71-72.

Defines developmental reading in terms of program content, purpose, and student's needs.

13. Witham, Anthony P. "Reading Programs in the Elementary Grades," Reading and Inquiry, 10, (1965), 415-418.

Analyzes current ventures in elementary reading programs and discusses underlying principles of format and content.

14. Wolfe, Josephine B. "Organizing for Reading Instruction in Grades Four, Five, and Six--A Four Dimensional Approach," Challenge and Experiment in Reading, 7, (1962), 38-40.

Reviews four structural dimensions necessary in good reading program organization: design, diagnosis, direction, and destination.

15. Wolfe, Josephine B. "Integrating the Language Arts: A Practical-Practicable Approach," Improvement of Reading Through Classroom Practice, 9, (1964), 116-118.

Discusses procedures for integrating and developing a language arts program which explores the new and preserves the old.

## II. READING PROGRAMS

16. Aaron, Ira E. "Contributions of Summer Reading Programs," Reading and Inquiry, 10, (1965), 413-415.

Describes a unique summer school program in which primary age children were taught with the express purpose of curbing high school leaving some eight to ten years in the future.

17. Harvilla, Lorraine. "A Reading Program for Six-, Seven-, and Eight-Year-Olds," Improvement of Reading Through Classroom Practice, 9, (1964), 94-95.

Develops a five point reading plan for six, seven, and eight year olds; describing organization, skills, conferences, overviews, and sharing by children.

18. Horrocks, Edna M. "Extending Reading Skills in a Large City School System," Changing Concepts of Reading Instruction, 6, (1961), 58-61.

Reviews a kindergarten experiment as well as discusses the Whole Book Discussion technique and improvement of reading skills of regular and in-migrant pupils.

19. Humphrey, Jack W. "Well-Rounded Reading Experiences," Reading and Inquiry, 10, (1965), 420-422.

Describes a reading program including content, materials, and class size.

20. Karbal, Harold T. "A Principal Looks at Reading Instruction," Reading and Inquiry, 10, (1965), 489-491.

Sees the principal as responsible for all aspects of the school curriculum including reading.

21. King, John. "Teaching One Million Johnnies to Read," Improvement of Reading Through Classroom Practice, 9, (1964), 8-14.

Reports the complexities involved in teaching reading using New York City Schools for illustration.

22. Lucar, Jim. "Initiating a Developmental Reading Program in High School," Vistas in Reading, 11, Part 1, (1966), 42-45.

Explains the expansion of a basal reading program in grades one through eight to a limited reading program in the high school area.

23. Pivnivk, Isadore. "The Big City Story--San Francisco," Challenge and Experiment in Reading, 7, (1962), 105-107.

Discusses a School Community Improvement Project, offering details and observations.

24. Roughton, Edgar L. "Reading Improvement in a Rural Community," Reading and Inquiry, 10, (1965), 261-263.

Reports on a five year reading improvement program in a small agricultural community.

25. Ryckman, John N. "Conquest and Exploration: A Reading-Language Program for Grades Four to Six," Vistas in Reading, 11, Part 1, (1966), 197-202.

Supports the theory that an integrated language program is the key to better reading.

26. Wilson, Rosemary Green. "The Big City Story--Philadelphia," Challenge and Experiment in Reading, 7, (1962), 101-104.

Surveys the educational problems and programs of Philadelphia.

## III. TEACHER EDUCATION

27. Austin, Mary C. "Harvard-Carnegie Study - A Preliminary Report," Challenge and Experiment in Reading, 7, (1962), 176-178.

Suggests from the combined reports of the Harvard-Carnegie Study and The Torchlighters future guidelines for strengthening reading training for both pre-service and in-service education of teachers.

28. Carlson, Mildred A. "Using in the Classroom What We Know About Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 211.

Explains a program of in-service training in which teachers find a personal significance similar to the experience a student might have in an individualized learning situation.

29. Fay, Leo. "Building More Effective Reading Programs Through Teacher Experimentation," New Frontiers in Reading, 5, (1960), 129-131.

Discusses three teacher-experiment projects completed as part of a college course concerned with improving reading in elementary schools.

30. Freeland, Alma Moore. "The Role of Supplementary Readers in Children's Literature," Vistas in Reading, 11, Part 1, (1966), 165-169.

Appraises the quality of college preparation in equipping future teachers to understand the purposes of, and skills in, using extra reading materials.

31. Lloyd, Helen M. "Meeting the In-Service Needs of Elementary Teachers in Reading Instruction," Improvement of Reading Through Classroom Practice, 9, (1964), 207-210.

Discusses a six-pronged action program as the answer to reading instruction problems related to heavy teacher turn-over, excessive pupil mobility, ever-increasing numbers of socially disadvantaged, many non-English speaking children, and a wide range of abilities.

32. Manning, John. "Evaluation of Professional Texts in Reading -- Elementary," Challenge and Experiment in Reading, 7, (1962), 195-198.

Evaluates professional textbooks as used in 1962 in undergraduate and graduate reading methods courses stressing that professional texts should provide sound understanding of the processes of reading.

33. McClellan, Grace. "Helping Teachers of Reading Meet the Special Needs of Children," Vistas in Reading, 11, Part 1, (1966), 215-216.

Recounts three ways in which the reading consultant may assist teachers in meeting problems in learning to read in the classroom.

34. Oyster, Mary M. "An Occupational Study of Reading Specialists in Elementary Schools," Vistas in Reading, 11, Part 1, (1966), 454-458.

Looks critically at the professional field of reading, preparation for reading, reading programs, licensing of teachers, and financing of programs.

35. Ramsey, Wallace. "Implications of Recent Doctoral Research for Reading," Reading and Inquiry, 10, (1965), 313-316.

Touches on numerous research studies by doctoral students, exploring problems and frustrations facing reading teachers.

36. Rawson, Hildred. "The Role of the Specialist in Reading," Reading and Inquiry, 10, (1965), 221-222.

Reviews two areas in which the training of the reading specialist will be expanded--that of cognitive development of children and the study of the theory of language.

37. Robinson, J. Phil. "Developing Teacher Awareness of Specific Oral Reading Errors," Improvement of Reading Through Classroom Practice, 9, (1964), 213-214.

Describes an in-service training program of five phases using listening-error notation tapes.

38. Simula, Vernon L. "The Changing Role: From Teaching to Guidance," Vistas in Reading, 11, Part 1, (1966), 218-220.

Explains the opportunities and the limitations of the classroom teacher as a counselor.

39. Sloan, Margaret. "In-Service Planning: A Necessary Adjunct to an On-Going Reading Program," Vistas in Reading, 11, Part 1, (1966), 161-165.

Supports the trend for on the job training of certified teachers, using Rochester, New York schools for illustration.

40. Sucsy, Margaret V. "In-Service Education as a Continuing Need," Improvement of Reading Through Classroom Practice, 9, (1964), 210-211.

Reports the results of a questionnaire indicating the inadequate training of reading teachers and lists eight recommendations to overcome these inadequacies.

41. Swanberg, Margaret. "Teamed Together--Teacher and Specialist," Reading and Inquiry, 10, (1965), 219-221.

Defines the reading specialist and suggests ways specialist and teacher may improve reading in the classroom.

## IV. READING MATERIALS

42. Aaron, I. E. "Using Basal Materials Effectively," Improvement of Reading Through Classroom Practice, 9, (1964), 73-74.

Offers 21 guides for effective use of basal readers, stressing that complete dependence upon them is harmful.

43. Anderson, Marion A. "An Editor Looks at Children's Language," Vistas in Reading, 11, Part 1, (1966), 326-329.

Discusses the tremendous possibilities of change in materials of instruction as related to the child's spoken language.

44. Barbe, Walter B. "The Effective Use of Supplementary Materials in the Reading Program," Vistas in Reading, 11, Part 1, (1966), 110-113.

Discusses the meaning, importance, and use of supplementary materials in school reading programs.

45. Bormuth, John R. "Experimental Applications of Cloze Tests," Improvement of Reading Through Classroom Practice, 9, (1964), 303-306.

Reports the findings of a study attempting to determine the reliability of cloze tests when used for measuring comprehension difficulties of reading passages.

46. Carlson, Thorsten. "Evaluating Materials for Reading Instruction--Intermediate Grades," Challenge and Experiment in Reading, 7, (1962), 190-193.

Concludes that properly evaluated, selected materials plus good teaching will lead to improvement in the total reading experience.

47. Carmer, Carl. "On Writing Americana for American Children," Changing Concepts of Reading Instruction, 6, (1961), 272-274.

Points out the place of folk-tales, legends, and history in writing children's literature.

48. Catledge, Faye. "Correct Use of Basal Readers," Vistas in Reading, 11, Part 1, (1966), 107-110.

Explains the correct use of basal readers as skill builders and illustrates the carry-over effects of reading skills into content fields: creative arts, language arts, science, social studies, arithmetic, health-sciences.

49. Dawson, Mildred A. "Children's Literature: Lodestones in Children's Books," Changing Concepts of Reading Instruction, 6, (1961), 183-186.

Discusses measuring sticks for selecting children's books and methods for bringing books and children together.

50. Docter, Robert L. "A comparison of the Effectiveness of Workbook and Non-Workbook Types of Follow-up Materials," Challenge and Experiment in Reading, 7, (1962), 156-158.

Indicates that workbook usage has a peak efficiency in grades two, three, and four and that non-workbook material is superior during grade one.

51. Gallant, Ruth. "Use of Cloze Tests as a Measure of Readability in the Primary Grades," Reading and Inquiry, 10, (1965), 286-287.

Establishes reliability and validity of Cloze Tests as reading comprehension measures for primary grades.

52. Gans, Roma. "The Effect of Current Emphases on Beginning Reading Materials and Methods on the Recognition of Individual Differences," Combining Research Results and Good Practice, 11, Part 2, (1966), 15-18.

Emphasizes and questions current publicity on early reading, specific reading approaches, and new materials.

53. Hartley, Helene W. "Teaching the Reading of Literature in the Elementary School," Challenge and Experiment in Reading, 7, (1962), 43-45.

Stresses the importance of early exposure to quality literature.

54. Huus, Helen. "Developing Interest and Taste in Literature in the Elementary Grades," Reading as an Intellectual Activity, 8, (1963), 46-50.

Presents five reasons why children want to read and five ways teachers can help develop literary taste in children.

55. Huus, Helen. "Children's Classics--Yesterday and Today," Improvement of Reading Through Classroom Practice, 9, (1964), 177-179.

Evaluates ten books, each from a different category, as being possible "classics" of tomorrow.

56. Jetton, Trula Maud. "The Basal Readers, a Tool for Meeting Individual Differences," Improvement of Reading Through Classroom Practice, 9, (1964), 72-73.

Encourages the skillful, thoughtful use of basal readers as well-defined ladders of skills which help the teachers provide for individual differences.

57. Latham, Jean Lee. "Writing for Tomorrow's Leaders," Changing Concepts of Reading Instruction, 6, (1961), 270-272.

Describes the elements an author seeks in determining subjects about which to write and the research necessary in creating books.

58. McCullough, Constance M. "Differentiating Instruction to Provide for the Needs of Learners: Through Methods and Materials," New Frontiers in Reading, 5, (1960), 32-36.

Poses questions and answers teachers may use in evaluating self-teaching devices, individualized reading materials and basal readers.

59. McGuire, Alice Brooks, "Towards Greener Pastures: Building Permanent Recreational Reading Interests Through the Elementary School Library," Vistas in Reading, 11, Part 1, (1966), 77-79.

Explores the role of teachers and librarians in guiding recreational readers towards an appreciation of good literature.

60. McKillop, Anne Selley. "The Influence of Personal Factors on the Reading Development of Children," New Frontiers in Reading, 5, (1960), 73-77.

Demonstrates how feelings, attitudes, and experiences influence perception, interpretation, memory, selection, and amount of reading materials.

61. Ruddell, Robert B. "A Study of the Cloze Comprehension Technique in Relation to Structurally Controlled Reading Material," Improvement of Reading Through Classroom Practice, 9, (1964), 298-303.

Examines the findings of a study dealing with the reliability and validity of the Cloze technique using an exant deletion method and a synonym count method of scoring and the discrimination power of these two methods on materials written with high and low frequency patterns of language structure.

62. Shepherd, David L. "Evaluating Materials for Remedial Instruction," Challenge and Experiment in Reading, 7, (1962), 193-195.

Stresses that materials are not automatically the key to success in reading programs - the teacher is the key.

63. Stanchfield, Jo M. "Increasing Boys' Reading Achievement Through Instructional Materials," Vistas in Reading, 11, Part 1, (1966), 440-444.

Reports that low-reading-achievement level boys, in certain Los Angeles City Schools, have improved reading-achievement level through effective materials and methods.

64. Urquhart, Donald. "Using the Basal Readers as a Springboard to Library Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 197.

Presents four points to be kept in mind when moving from a

directed reading activity based on a selection from a basal reader to the follow-up stage which involves the use of library books.

65. Vining, Elizabeth Gray. "What Measures Stand the Test of Time?" Improvement of Reading Through Classroom Practice, 9, (1964), 14-18.

Provides a rich discussion of the qualities of a good children's book.

## V. METHODS AND GROUPING

66. Artley, A. Sterl. "A Look at the Road Ahead," Changing Concepts of Reading Instruction, 6, (1961), 55-58.

Discusses the contributions of reading approaches and stresses the idea that a combination of the best features of each may be molded into a pattern that more adequately serves the needs of the learner.

67. Barbe, Walter B. "Selection of Reading Material for an Individualized Reading Program," Improvement of Reading Through Classroom Practice, 9, (1964), 195.

Examines the need for and a definition of individualized reading and discusses criteria for material selection.

68. Betts, Emmett Albert. "The Place of Basic Reading Instruction," New Frontiers in Reading, 5, (1960), 144-149.

Considers basic reading instruction in regard to: goals, systematic sequences, materials, and methods: the relationship between reading instruction and a pupil's competency in other areas of the curriculum; and probes into undeveloped areas of reading instruction.

69. Bloomer, Richard H. "Motivation and Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 283-285.

Discusses the skilled manipulation of the child and the classroom situation as effective motivators of learning versus the ideas of the television and advertising men.

70. Burrows, Alvina Treut. "Classroom Organization for Learners and Teachers," Vistas in Reading, 11, Part 1, (1966), 134-136.

Proposes suggestions for classroom improvement in order to achieve an optimal learning situation: appropriate goals, variety of activities and classroom arrangements, equipment, grouping, skills, and teacher flexibility.

71. Burrows, Alvina Treut. "Building Lifetime Reading Habits in an Individualized Reading Program," Reading and Inquiry, 10, (1965), 151-153.

Proposes directives and ways that an individually oriented reading program can contribute to human responses.

72. Bush, Clifford L. "Three Kinds of Grouping in the Same Classroom," Improvement of Reading Through Classroom Practice, 9, (1964), 50-51.

Asks teachers to avoid creating, or allowing, passive learning situations and to attempt active cooperative experiences between teacher and student.

73. Carline, Donald E. "Evaluation for Pupil Effectiveness," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 44-49.

Defines evaluation in the IRP as helping children recognize their own capacities and/or limitations within the reading process.

74. Carline, Donald E. "Evaluation for Program Effectiveness," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 50-56.

Lists and discusses the primary responsibilities for teachers and pupils in considering evaluation of IRP effectiveness.

75. Carner, Richard L. "The Cortland TV Reading Project," Changing Concepts of Reading Instruction, 6, (1961), 148-151.

Reports the findings of the first two years of teaching reading through closed circuit television in which TV pupils exceeded the controls in the amount of reading gains and more positive attitudes towards reading.

76. Carroll, Hazel Horn. "Magic of Presenting Materials Through Television," Vistas in Reading, 11, Part 1, (1966), 115-116.

Discusses television as a magic medium to help channel children into creative reading and appreciation of books.

77. Caskey, Helen J. "Meeting Barriers to Comprehension," Vistas in Reading, 11, Part 1, (1966), 248-252.

Reviews four ways teacher guidance may help a child read with greater understanding.

78. Childs, Sally. "Sound Reading," New Frontiers in Reading, 5, (1960), 101-105.

Presents background material on reading approaches and related language skills listing six characteristics of children having specific language disabilities and discusses what a strong phonics program can do for these cases.

79. Cleland, Donald L. "Methods of Teaching Reading in the Primary Grades," Challenge and Experiment in Reading, 7, (1962), 30-33.

Analyzes the many methods of teaching reading stressing the importance of the teacher in any approach.

80. Cooke, Dorothy E. "Some Promising Innovations in Reading," Vistas in Reading, 11, Part 1, (1966), 194-197.

Recommends the forward look in teaching reading by suggesting three methods: Watts method, writing method, and the five strand summer program.

81. Crosby, Muriel. "Building More Effective Reading Programs Through Storytelling and Creative Dramatics," New Frontiers in Reading, 5, (1960), 127-128.

Discusses how vocabulary building, language sensitivity, and thinking are fostered by storytelling and creative dramatic activities.

82. Cushenbery, Donald C. "Constructive Ways of Grouping for Reading Instruction," Vistas in Reading, 11, Part 1, (1966), 140-142.

Discusses the Joplin Plan, the individualized approach, and the basic materials approach.

83. Darling, Richard L. "Bringing Readers and Books Together Successfully Through Storytelling," Reading as an Intellectual Activity, 8, (1963), 166-168.

Suggests that storytelling can be a vital avenue for introducing children to good reading experiences.

84. DeAngelo, Rachel W. "Partners in Teaching Reading: The Classroom Teacher and the Librarian," Improvement of Reading Through Classroom Practice, 9, (1964), 196-197.

Discusses five specific activities in the library program that contribute to the development of reading taste and skill.

85. Dechant, Emerald. "Why an Eclectic Approach in Reading Instruction?" Vistas in Reading, 11, Part 1, (1966), 28-32.

Explains how individualizing and personalizing instruction results in more successful learning of reading.

86. Downing, John. "Conflicts and Confusions in i.t.a. Experiments," Vistas in Reading, 11, Part 1, (1966), 269-272.

Poses five questions educators should ask themselves before accepting i.t.a. research project findings and points out valid conclusions based on four years of research.

87. Downing, John and Halliwell, Stanley. "The i.t.a. Reading Experiment in Britain," Improvement of Reading Through Classroom Practice, 9, (1964), 260-265.

Reports the results of the Reading Research Unit's experiment in using i.t.a. as an approach to reading.

88. Duggins, Lydia A. "Relating Reading Instruction to Children's Developmental Growth Patterns," Vistas in Reading, 11, Part 1, (1966), 25-27.

Supports the idea that a child's reading is built upon speech and writing experiences.

89. Durrell, Donald. "Evaluating Pupil Team Learning in Intermediate Grades," New Frontiers in Reading, 5, (1960), 112-115.

Reports the findings of a study in which pupil team learning as a method of providing for individual differences was used.

90. Durrell, Donald D. "Pupil-Team Learning: Objectives, Principles, Techniques," Changing Concepts of Reading Instruction, 6, (1961), 75-78.

Explains why pupil-team learning is a natural for many classroom situations, points out conditions which contribute to its success, and discusses the role of the teacher in this learning technique.

91. Engler, David. "Multi-Media Approaches to Reading Instruction," Vistas in Reading, 11, Part 1, (1966), 113-115.

Accents the use of multi-media approaches in reading instruction including: variety in book selections, tape recorders, phonographs, movies, colored charts, filmstrips, overhead projectors, flannel boards, games, and slides.

92. Flierl, Nina T. "Using Television Interests to Build Reading," New Frontiers in Reading, 5, (1960), 121-124.

Discusses a study in which a TV and reading pattern were surveyed and two programs, Dennis the Menace and Wagon Train, were used to stimulate children to broaden and deepen their reading interests.

93. Flierl, Nina T. "Large Group Reading Instruction," Reading as an Intellectual Activity, 8, (1963), 50-52.

Suggests that large group reading instruction, 50 to 300 students, has been and can be successful when skillfully administered.

94. Glass, Gerald G. "The Teaching of Word Analysis Through Perceptual Conditioning," Reading and Inquiry, 10, (1965), 410-413.

Suggests that a perceptual conditioning method be used in early training in reading because it minimizes factors of an emotional and intellectual nature and may be easier.

95. Groff, Patrick, "Individualizing Reading and Creative Writing," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 36-43.

Enlightens the teacher to the close, vital, relationship between writing and reading in a successful IRP.

96. Groff, Patrick. "Individualizing the Reading Program," Challenge and Experiment in Reading, 7, (1962), 70-72.

Explains the principles of individualized reading offering pros and cons.

97. Hagin, Rosa A.; Silver, Archie A.; Hersh, Marilyn F. "Specific Reading Disability: Teaching by Stimulation of Deficit Perceptual Areas," Reading and Inquiry, 10, (1965), 368-370.

Concludes that perception is modifiable by training and that improved perception is reflected in increased reading achievement.

98. Halcomb, James F. "Reading: The Language Experience Approach," Challenge and Experiment in Reading, 7, (1962), 72-74.

Supports the theory that reading is a language skill not isolated from speaking, listening, and writing.

99. Harvilla, Lorraine. "Initiating the Individualized Reading Program: Various Transitional Plans," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 7-12.

Discusses various practical ways for transition into an IRP from a traditional reading program and lists helpful references.

100. Heilman, Arthur. "Theoretical Design for Teaching Reading," Challenge and Experiment in Reading, 7, (1962), 243-245.

Probes the problem of the relationship between theory and classroom practice, citing examples illustrating the need for teacher understanding in this problem.

101. Hendrickson, Harry C. "Team Teaching at the Elementary School Level," Improvement of Reading Through Classroom Practice, 9, (1964), 51-52.

Reports that reading and language arts are major areas of team instruction and cites successful examples.

102. Hunt, Lyman C. "Philosophy of Individualized Reading," Reading and Inquiry, 10, (1965), 146-148.

Supports the theory that a child's pattern of learning cannot be predetermined in either rate or manner and is best guided within a flexible atmosphere.

103. Hunt, Lyman C. "Should the Professor Return to the Classroom? or I Taught Individualized Reading in the Third Grade," Improvement of Reading Through Classroom Practice, 9, (1964), 92-93.

Stresses the importance of Quiet Reading Time and of follow-up individual teacher-pupil conferences to success in a third grade IRP.

104. Hunt, Lyman C. "The Individualized Reading Program: A Perspective," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 1-6.

Defines IRP's and elaborates on teacher roles and procedures, materials, classroom organization, skills, evaluation, and program expansion.

105. Kluwe, Mary Jean. "The Non-Graded Primary," Reading and Inquiry, 10, (1965), 418-420.

Presents the problems and organization of non-graded primary schools while presenting a comparison with graded schools.

106. Kupres, Marie. "Individualized Reading: Focus on Skills," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 26-35.

Analyzes the approach to reading skills in IRP's by examining a program in action.

107. Mariam, Sister. "Can The Teacher Improve Pupil Discrimination in TV and Reading?" New Frontiers in Reading, 5, (1960), 124-129.

Reports the findings of an experiment performed with 500 sixth grade children to determine the degree to which a teacher can improve the televiewing habits of children.

108. Mariam, Sister. "Teacher-Pupil Rapport on Television," Improvement of Reading Through Classroom Practice, 9, (1964), 128-129.

Suggests four dynamic relationships which should be considered in planning television programs for the student: intellectual level, class norms within which the child functions, and family and peer group characteristics.

109. Martin, Marjorie. "Organizing Instruction in Ungraded Primary Schools," Vistas in Reading, 11, Part 1, (1966), 136-140.

Defines and discusses benefits of non-graded primary school units.

110. Mazurkiewicz, Albert J. "The Lehigh-Bethlehem i.t.a. Study," Improvement of Reading Through Classroom Practice, 9, (1964), 265-267.

Reports results of the progress and observations on an eight-month study using i.t.a. with Bethlehem first graders.

111. McCollum, John A. "An Experimental Evaluation of the Carden Method," Challenge and Experiment in Reading, 7, (1962), 123-128.

Claims that the Carden Method has been made to appear more valuable than it is.

112. McHugh, Walter J. "Pupil-Team Learning in the Intermediate Grades," Changing Concepts of Reading Instruction, 6, (1961), 78-81.

Discusses pupil-team organization with regard to word skills, oral reading, recall and workbook practice, critical thinking and elaborative thinking.

113. Metzler, Helen. "Providing for Individual Differences in Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 95-96.

Evaluates individualized reading as the greatest opportunity for developing and measuring the child's progress in reading.

114. Monroe, Marion. "Day by Day Planning for Success in Reading," Vistas in Reading, 11, Part 1, (1966), 159-161.

Follows the thinking process of a teacher as she might analyze materials and plan instructional procedures.

115. Morrison, Coleman. "Individualizing Reading: Some Unanswered Questions," Improvement of Reading Through Classroom Practice, 9, (1964), 93-94.

Poses some broad questions on individualizing reading programs.

116. Murphy, Helen A. "Mutual Aid in Learning in the Primary Grades," Changing Concepts of Reading Instruction, 6, (1961), 81-84.

Discusses a series of classroom studies in which students were grouped in pairs for effective learning and shows results of testing as significant in gains in learning as well as improvement in listening, development of mutual respect, cooperation within a classroom and a willingness to share ideas.

117. Natchez, Gladys. "Teaching Through Reaching One and All," Vistas in Reading, 11, Part 1, (1966), 223-226.

Explains the application of the self-concept theory in the classroom as a means of preventing school failures.

118. Painter, Helen W. "Some Techniques for Building Lifetime Reading Habits," Improvement of Reading Through Classroom Practice, 9, (1964), 176-177.

Lists four basic aspects of lifetime reading habits with seven suggested techniques for teachers to use in promoting lifetime reading habits.

119. Pooley, Robert. "Bloomfield-Barnhart--Let's Read," Challenge and Experiment in Reading, 7, (1962), 251-253.

Presents the essentials of the Bloomfield-Barnhart linguistic method of teaching reading.

120. Popp, Helen M. "Programmed Reading in the Elementary Grades," Improvement of Reading Through Classroom Practice, 9, (1964), 131-132.

Explains the mechanics of four elementary reading programs, and suggests requests for validation data and the use of a sample as a means of evaluating the program.

121. Ramsey, Russell R. "Developing and Supervising Individualized Reading on a School-Wide Basis," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 57-63.

Introduces the development and supervision of IRP on a school wide basis with the IRP of Harvey School, Massillon, Ohio, as a reference point.

122. Ramsey, Wallace. "An Evaluation of Three Methods of Teaching Sixth Grade Reading," Challenge and Experiment in Reading, 7, (1962), 151-153.

Illustrates that the teacher is probably more influential to the child's learning than method or material.

123. Rhodes, Brusilla H. and Hosack, Miriam. "Organizing a Classroom for Reading," Vistas in Reading, 11, Part 1, (1966), 403-406.

Analyzes one classroom individualized reading program in action.

124. Robinson, Margaret A. "Differentiating Instruction to Provide for the Needs of Learners (a) in Grades 4-6 and (b) Through Organizational Practices," New Frontiers in Reading, 5, (1960), 29-32.

Describes various reading plans, criteria of organization and suggestions teachers have found helpful in grouping.

125. Ross, Ramon. "Reading Instruction in the Ungraded Primary," Reading and Inquiry, 10, (1965), 128-129.

Defines the non-graded unit as a pattern of organization designed to insure full recognition of individual differences in the instructional setting by the elimination of arbitrary grade classifications and grade expectations.

126. Routley, Clare B. "Television as an Instructional Tool," Improvement of Reading Through Classroom Practice, 9, (1964), 126-128.

Compares television reading instruction in other countries with that of the United States and discusses criteria for a television teacher as well as criteria for reading programs.

127. Sartain, Harry W. "Of Stars and Statistics," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 64-72.

Cautions teachers not to rapidly adopt an IRP and encourages critical, thoughtful consideration of statistical findings.

128. Sheldon, William D. "Differentiating Instruction to Provide for the Needs of Learners: Through Organizational Practices," New Frontiers in Reading, 5, (1960), 23-26.

Discusses types of classroom organization which facilitates the development of a well integrated and sequential reading program.

129. Singer, Harry. "Substrata-Factor Theory of Reading: Theoretical Design for Teaching Reading," Challenge and Experiment in Reading, 7, (1962), 226-232.

Shows how this theory can be used for attaining power and speed in reading using the fourth grade as a model.

130. Smith, Nila Banton. "Differentiating Instruction to Provide for the Needs of Learners: Through Methods and Materials," New Frontiers in Reading, 5, (1960), 26-29.

Reviews reading methods and materials for use in differentiating instruction and points out three approaches teachers may use in assessing this diversity.

131. Soar, Robert S. "Pupil Needs and Teacher-Pupil Relationships," Reading and Inquiry, 10, (1965), 51-53.

Suggests that the most effective learning depends on the tension the child feels, the emotional climate, and the teacher control present in the classroom, and that the optimum of each of these will differ with abstractness of the learning task.

132. Sparks, J. E. "Teaching a Reading Lesson in the Intermediate Grades," Challenge and Experiment in Reading, 7, (1962), 41-43.

Summarizes basic principles important to all study areas: warm-up, reading, and review.

133. Sperry, Florence. "The Relationship Between Patterns of Reading Instruction and Reading Achievement in the Primary Grades," Changing Concepts of Reading Instruction, 6, (1961), 87-89.

Identifies, analyzes, and determines the relative effectiveness of the basal text approach and the individualized reading approach.

134. Strang, Ruth. "Guidance in Learning," Vistas in Reading, 11, Part 1, (1966), 212-215.

Discusses a teacher's skillful use of psychological concepts in regard to helping a child develop his reading potential.

135. Swauger, Velora V. "Use of Television for Reading Instruction to Supplement the Developmental Reading Program in a County System," Changing Concepts of Reading Instruction, 6, (1961), 154-156.

Discusses supplementary TV instruction consisting of a reading skills program on two tracks and a two track controlled reader program and the unique team functioning of the studio teacher and the classroom teacher.

136. Theophemia, Sister Mary. "The Impact of Reading on the Personal Development of Children," New Frontiers in Reading, 5, (1960), 69-73.

Explains ways teachers may integrate reading with the personal needs of the child so that he may grow socially, emotionally, morally, physically, intellectually, and spiritually.

137. Van Allen, Roach. "Three Approaches to Teaching Reading," Challenge and Experiment in Reading, 7, (1962), 153-156.

Reports a San Diego County California Reading Study Project which investigated three methods of teaching reading: basic reading, individualized, and language-experience.

138. Veatch, Jeannette. "Classroom Organization: Structuring the Individualized Reading Period," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 19-25.

Encourages teachers to establish a general day-by-day sequential plan for IRP by suggesting six practical steps.

139. Veatch, Jeannette. "The Conference in the Individualized Reading Program: The Teacher-Pupil Dialogue," The Individualized Reading Program: A Guide for Classroom Teachers, 11, Part 3, (1966), 13-18.

Outlines the procedures for an evaluative IRP-Teacher-Pupil Conference stressing the importance of such conferences.

140. Whitehead, Robert. "Oral Interpretation of Literature," Vistas in Reading, 11, Part 1, (1966), 84-86.

Stresses both the importance of reading aloud to children and the necessity for developing good techniques in so doing.

141. Witty, Paul. "The Mass Media and Reading," Challenge and Experiment in Reading, 7, (1962), 74-80.

Investigates the influence of mass media on school children, finding the electronic pied piper a marked influence.

142. Wonsavage, Elaine P. "Research Reveals Questions Educators Raise About Individualized Reading," Reading as an Intellectual Activity, 8, (1963), 235-238.

Indicates results from a questionnaire sent to 90,000 principals and supervisors in 1962 concerning teacher readiness and understanding, materials and skills.

## VI. READING SKILLS

143. Artley, A. Sterl. "Implementing a Critical Reading Program on The Primary Level," Reading and Inquiry, 10, (1965), 111-112.

Concludes that, during critical reading, intelligent questioning by the teacher will help establish understanding of valid judgments.

144. Ashlock, Patrick. "The Visual Perception of Children in the Primary Grades and Its Relation to Reading Performance," Reading and Inquiry, 10, (1965), 331-333.

Studies primary grade subjects who had no known learning handicaps in order to learn more about unimpaired visual perceptual development.

145. Austin, Martha Lou. "Improvement of Reading Through Instruction in Listening," Vistas in Reading, 11, Part 1, (1966), 32-35.

Discusses the possibilities for relating the common elements of listening and reading for instructional purposes.

146. Beery, Althea. "Integrated or Interrelated?" Improvement of Reading Through Classroom Practice, 9, (1964), 115-116.

Deals with the comprehensive question of the extent to which reading and the other language arts are related.

147. Botel, Morton. "Strategies for Teaching Sound-Letter Relationships," Vistas in Reading, 11, Part 1, (1966), 156-159.

Suggests five standards for teaching phonics or word attack and discusses elements leading to better pupil understanding.

148. Brzeinski, Joseph E. "When Should Phonics Instruction Begin?" Reading as an Intellectual Activity, 8, (1963), 228-232.

Concludes, from a two year Denver Public School study, that elementary phonics during kindergarten establishes an advantage for children.

149. Burrows, Alvina Treut. "Creative Writing is Related to Reading," Reading as an Intellectual Activity, 8, (1963), 270-272.

Suggests the possibility of generating enthusiasm and delight by coordinating reading and creative writing in the elementary classroom.

150. Catterson, Jane. "Inductive Versus Deductive Methods in Teaching Word-Attack Skills," Challenge and Experiment in Reading, 7, (1962), 121-123.

Investigates the realtive merits of inductive and/or deductive teaching of word attack skills.

151. Chambers, Dewey W. "Children's Literature and Creative Thinking," Vistas in Reading, 11, Part 1, (1966), 87-89.

Offers a kaleidoscope of opportunities in literature for developing and encouraging creativity in children.

152. Chambers, J. Richard. "Extending the Sight Vocabulary," Reading and Inquiry, 10, (1965), 29-30.

Emphasizes that procedures in word recognition must continually emphasize meaning and word analysis, with attention to context clues and structural and phonetic analysis.

153. Clymer, Theodore. "The Utility of Phonic Generalization in the Primary Grades," Changing Concepts of Reading Instruction, 6, (1961), 157-159.

Investigates phonic generalizations, based on four widely used sets of readers being taught and the percent of utility for each generalization.

154. Davis, Frank R., Jr. "The Substrata Theory: Human Physiology as a Factor in Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 292-295.

Describes the results of a research study in which neuro-psychological subsystems are applied to physiological functions and a significant relationship between measures of these physiological functions and a measure of a psychological function, reading speed, is reported.

155. Dawson, Mildred A. "An Overview of Oral Language Recommendations," Improvement of Reading Through Classroom Practice, 9, (1964), 289-291.

Recommends principles for guiding the improvement of oral language in the classroom and explains the role of the parent and teacher in providing experiences for effective oral contributions.

156. Della-Piana, Gabriel M. and Herlin, Wayne R. "Are Normative Oral Reading Error Profiles Necessary?" Improvement of Reading Through Classroom Practice, 9, (1964), 306-309.

Reports the findings of a study dealing with the correlation between raw error scores and normative error scores on reading tests.

157. Durr, William K. "Building Initial Critical Reading Abilities," Vistas in Reading, 11, Part 1, (1966), 55-58.

Examines general classroom procedures and planned, specific techniques for promoting critical reading ability.

158. French, Richard. "Changing Concepts of Reading Instruction in the Development of Basic Skills," Changing Concepts of Reading Instruction, 6, (1961), 39-41.

Stresses the need for better understanding of the reading process, increased skill in diagnosing pupil needs, and basing the instructional program on pupil needs.

159. Grimes, Jesse W. "A Study of the Meaning of Phonics Skill in its Relationship to Intelligence, Reading, and School Success," Changing Concepts of Reading Instruction, 6, (1961), 130-133.

Reports the findings of a study which give strong support to the idea that an aptness for learning phonics skill may be a personality trait or may be related to personality characteristics.

160. Holmes, Jack A. "Speed, Comprehension, and Power in Reading," Challenge and Experiment in Reading, 7, (1962), 143-149.

Outlines the Substrata Factor Theory and reports some research findings on this theory of power in reading.

161. Huus, Helen. "Critical and Creative Reading," Reading and Inquiry, 10, (1965), 115-117.

Shows how critical and creative reading are not mutually exclusive, nor synonymous, but that they overlap and interact for fullest meaning.

162. Jan-Tausch, James. "Concrete Thinking as a Factor in Reading Comprehension," Challenge and Experiment in Reading, 7, (1962), 161-164.

Arrives at seven suggestions about the relationship between reading comprehension and concrete thinking, after administering specific standardized tests.

163. Jenkinson, Marion D. "Laying the Foundations for a Critical Reading Program in the Primary Grades," Reading and Inquiry, 10, (1965), 112-114.

Supports the stand that an attitude of inquiry towards content, the art of judging well, must be instilled from the earliest school experiences.

164. Jenkinson, Marion D. "Reading--Developing the Mind," Changing Concepts of Reading Instruction, 6, (1961), 170-173.

Discusses the nature of thinking in reading and some of the obvious pitfalls in language functioning.

165. Kerfoot, James F. "Comprehending Comprehension," Improvement of Reading Through Classroom Practice, 9, (1964), 74-76.

Identifies comprehension as the most complex area of reading instruction while addressing four particular reading problems.

166. Lundsteen, Sara W. "Critical Reading and Listening," Reading and Inquiry, 10, (1965), 306-308.

Reports evidence of lateral transfer from lessons in critical listening to performance and attitudes toward general and critical reading.

167. Mason, George E. "Word Recognition Practice: Basal vs. Phonics Programs," Improvement of Reading Through Classroom Practice, 9, (1966), 309-310.

Compares suggested practices in word recognition from eight leading basal readers.

168. Mason, George E. "The Role of Phonics in the First Grade Program," Challenge and Experiment in Reading, 7, (1962), 27-29.

Sees the role of phonics in first grade as a facilitator of the total job of developing recognition of a stock of sight words.

169. McCracken, Robert A. "The Development and Validation of the Standard Reading Inventory for the Individual Appraisal of Reading Performance," Improvement of Reading Through Classroom Practice, 9, (1964), 310-313.

Explains the understandings necessary for evaluating a child's reading levels and the processes in corroborating content validity and reliability of the Standard Reading Inventory.

170. Murphy, Helen A. "A Research Pitfall: Jumping to Conclusions," Challenge and Experiment in Reading, 7, (1962), 117-119.

Reports research of efforts made to discover factors important in the learning-reading process.

171. Pratt, Edward. "Reading as a Thinking Process," Vistas in Reading, 11, Part 1, (1966), 52-55.

Discusses the thought processes of primary grade children i regard to reconstructing the organizational patterns common to narrative writing.

172. Robinson, H. Alan. "Phonics Instruction--When? What? for Whom?" Reading as an Intellectual Activity, 8, (1963), 224-228.

Stresses individual differences in readiness levels among children pointing out that educational-psychological studies of each child should be made in order to determine best time and method for beginning reading.

173. Robinson, Helen M. "Perceptual and Conceptual Style Related to Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 26-28.

Discusses perception in children as objective and subjective or part and whole suggesting possible necessity for adjusting to individual needs.

174. Simpson, Hazel D. "Establishing the Instructional Level," Vistas in Reading, 11, Part 1, (1966), 540-542.

Testing reading ability with an informal reading inventory, with discrimination, offers useful information in a short period of time.

175. Simula, Vernon L. "Broadening our Perspectives of Listening and Speaking Problems," Reading and Inquiry, 10, (1965), 49-51.

Urges educators to shift their emphasis from teaching children to speak and listen, to teaching them effective thinking and communication.

176. Singer, Harry. "Substrata Factor Theory of Reading: Grade and Sex Differences in Reading at the Elementary School Level," Improvement of Reading Through Classroom Practice, 9, (1964), 313-319.

Reports the results of a study designed to give teachers a better understanding of what reading sub-skills improve concomitantly with the development of speed and power of reading; the degree to which these sub-skills improve; and which sub-skills to emphasize in planning instruction.

177. Stanchfield, Jo M. "Boys' Achievement in Beginning Reading," Reading and Inquiry, 10, (1965), 290-293.

Reports seven basic areas of difference in the learning patterns of boys and girls.

178. Thompson, Evelyn S. "New Approaches to Teaching the Study Skills," Vistas in Reading, 11, Part 1, (1966), 62-63.

Discusses approaches to teaching study skills which focus on the reading process as a thinking process in developing critical and creative reading abilities.

179. Umstattd, Diana. "Developing Advanced Word Perception Skills," Reading and Inquiry, 10, (1965), 30-32.

Stresses the importance of upper elementary students knowing how to attack the numerous new reading situations they continue to confront.

180. Vilscek, Elaine C. "Building Skills in an Individualized Reading Program," Reading and Inquiry, 10, (1965), 148-151.

Discusses skill building in an individualized reading program with emphasis on evaluative tools, instructional materials, behaviorism in reading and the significance of specific skills in the total program.

181. Wagner, Rosemary E. "Reading Skills or Language Skills?" Improvement of Reading Through Classroom Practice, 9, (1964), 114-115.

Considers briefly the interrelationship between reading comprehension skills and listening-speaking comprehension skills.

182. Wolfe, Josephine B. "Changing Concepts of Reading Instruction in the Development of Basic Skills," Changing Concepts of Reading Instruction, 6, (1961), 32-35.

Answers questions pertaining to kinds of basic skills to be taught, knowing skill needs of individuals, effective approaches to reading instruction, and teaching methods to be used.

## VII. WHEN SHOULD READING INSTRUCTION BEGIN?

183. Brzeinski, Joseph E. "Early Introduction to Reading," Reading and Inquiry, 10, (1965), 443-446.

Re-examines early childhood education and reports that recent attention to this period has resulted in research on teaching young children to read.

184. Durkin, Dolores. "Some Unanswered Questions About Five-Year-Olds and Reading," Changing Concepts of Reading Instruction, 6, (1961), 167-170.

Poses questions and possible answers to be considered in early reading instruction.

185. Durkin, Dolores. "Reading Instruction and the Five-Year-Old Child," Challenge and Experiment in Reading, 7, (1962), 23-27.

Suggests that the exposure curriculum has the potential of becoming an exciting, natural way to introduce children to reading.

186. Glass, Gerald G. "Let's Not Read So Soon! (Even Those Who Can)," Vistas in Reading, 11, Part 1, (1966), 458-461.

Explores the problems and implications of initiating later instruction in reading in the school curriculum.

187. Holmes, Jack A. "When Should and Could Johnny Learn to Read," Challenge and Experiment in Reading, 7, (1962), 237-241.

Clarifies the question of when reading instruction should begin and synthesizes related research up to 1962.

188. Moskowitz, Sue. "When Should Reading Instruction Begin?" Reading as an Intellectual Activity, 8, (1963), 218-222.

Warns parents and educators not to rush children into early learning, stressing findings from current research.

189. Rambusch, Nancy McCormick. "At What Age Should Systematic Reading Instruction Begin?" Reading as an Intellectual Activity, 8, (1963), 222-224.

Stresses the importance of pre-reading experiences citing the Montessori philosophy.

190. Smith, Nila Banton. "Perspectives: Teaching Young Children to Read," Vistas in Reading, 11, Part 1, (1966), 581-586.

Defines the problems involved in terminology and reading instruction.

## VIII. PRE-SCHOOL READING

191. Artley, A. Sterl. "Reading in Kindergarten," Combining Research Results and Good Practices, 11, Part 2, (1966), 7-13.

Discusses the advisability of introducing reading in kindergarten and offers both pro and con arguments.

192. Barrett, Thomas C. "Predicting Reading Achievement Through Readiness Tests," Reading and Inquiry, 10, (1965), 26-28.

Emphasizes the problems in finding measures or pre-reading

skills, abilities, and understandings which can best predict future reading success.

193. Dietrich, Dorothy M. "Providing for Individual Differences at the Reading Readiness Level," Reading and Inquiry, 10, (1965), 450-452.

Stresses the importance of building a total individualized readiness program in kindergarten and not just reading readiness.

194. Enzmann, Arthur M. "Project Head Start in Detroit," Vistas in Reading, 11, Part 1, (1966), 188-190.

Concentrates on language experiences and communicatory skill development offered in a pre-kindergarten project.

195. Gmeiner, Charlotte. "The Kindergarten Contributes to Reading Readiness," Reading and Inquiry, 10, (1965), 452-454.

Reports kindergarten readiness programs as the time and the environment for developing concepts, language, curiosity, and creativity.

196. Kelley, Marjorie L. "Reading in the Kindergarten," Reading and Inquiry, 10, (1965), 446-448.

Presents encouraging results from an experiment in a California school district in teaching reading to kindergarteners.

197. MacKinnon, A. R. "Reading and Five-Year-Old Children," Changing Concepts of Reading Instruction, 6, (1961), 164-167.

Reports the findings of studies which suggest ways in which materials may be transformed in order to encourage early perceptual development.

198. Monroe, Marion. "Necessary Preschool Experiences for Comprehending Reading," Reading and Inquiry, 10, (1965), 45-46.

Likens a child's pre-reading activities to giving him foreknowledge of the tools of his future trade.

199. Muehl, Siegmar. "The Effects of Letter-Name Knowledge on Learning to Read a Word List in Kindergarten Children," Challenge and Experiment in Reading, 7, (1962), 128-133.

Assesses the possibilities of whether or not children learn to discriminate words and associate word meanings on the basis of data associated with word configuration.

## IX. READING READINESS

200. Alshan, Leonard M. "Reading Readiness and Reading Achievement," Reading and Inquiry, 10, (1965), 312-313.

Suggestions for aiding first grade teachers in making predictions about the reading success of their students.

201. Barrett, Thomas C. "Performance on Selected Prereading Tasks and First Grade Reading Achievement," Vistas in Reading, 11, Part 1, (1966), 461-464.

Outlines a study showing predictive relationships between certain pre-reading tasks and reading achievement.

202. Bing, Lois B. "Vision Readiness and Reading Readiness," Improvement of Reading Through Classroom Practice, 9, (1964), 268-271.

Investigates the complex process of vision and its relationship to beginning reading; emphasizing the role of the teacher in recognizing symptoms of visual difficulty.

203. Councill, Grace M. "Detecting and Correcting Reading Deficiencies Day-By-Day," Vistas in Reading, 11, Part 1, (1966), 243-245.

Lists six instructional jobs that might be carried out with children who lack reading readiness and explains activities that would further reinforce this instruction.

204. Efron, Marvin. "The Role of Vision in Reading Readiness," Reading and Inquiry, 10, (1965), 357-358.

Discusses generally the role of visual skills in reading development.

205. Gould, Lawrence N., Henderson, Edward, and Scheele, Raymond L. "Vision Motor Perception Program in the Brentwood Public Schools," Improvement of Reading Through Classroom Practice, 9, (1964), 271-275.

Describes the development of an elementary program in which specific cognitive operations are structured discussing implications for developing reading readiness.

206. Hillerich, Robert L. "Studies in Reading Readiness," Reading and Inquiry, 10, (1965), 47-49.

Points out that recent research in reading has caused a stir in many traditional reading readiness practices.

214. Rutherford, William L. "Perceptual-Motor Training and Readiness," Reading and Inquiry, 10, (1965), 294-296.

Describes a play program designed to develop laterality, directionality, accurate body image concepts, visual-kinesthetic matching, and binocular and monocular control with kindergarten children.

215. Rutherford, William L. "Vision and Perception in the Reading Process," Vistas in Reading, 11, Part 1, (1966), 503-507.

Recognizes vision and perception as vital factors in the reading process.

216. Singer, Harry. "An Instructional Strategy for Developing Conceptual Responses in Reading Readiness," Vistas in Reading, 11, Part 1, (1966), 425-431.

Proposes an instructional strategy for developing conceptual responses to printed words in reading readiness programs.

217. Taylor, Stanford E. "The Relationship of the Ocular-Motor Efficiency of the Beginning Reader to Success in Learning to Read," Reading and Inquiry, 10, (1965), 358-361.

Introduces the first stages of a study of oculo-motor performance achievement in reading by pupils over a four year period.

218. Townsend, Agatha. "Readiness for Beginning Reading," Reading as an Intellectual Activity, 8, (1963), 43-46.

Questions the statement that time determines readiness not the teacher and urges teachers to accept responsibility for building readiness.

## X. FIRST GRADE READING

219. Alenick, Elizabeth. "The Audio-Visual Approach in Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 129-131.

Reports the findings of a study of first grade classes in which the audio-visual approach was used. Outlines materials and equipment used in this approach, how the materials were used, provisions for evaluation, suggestions for creativity and instructional pitfalls to be avoided.

220. Bond, Guy L. "First Grade Reading Studies: Implementation," Reading and Inquiry, 10, (1965), 479-484.

Elaborates on the Coordinating Center Project, pointing out recent research data in the field of first grade reading.

221. McNeil, John D. "Sex Differences in Effectiveness of Teaching Machines Versus Women Teachers for Teaching Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 296-297.

Reports the findings of a study in beginning reading indicating an association between teacher behavior and inferior reading performance.

222. Feldmann, Shirley. "Predicting Early Success," Reading and Inquiry, 10, (1965), 408-410.

Discusses the new Reading Prognosis Test which was designed to be predictive of future reading achievement as well as to give diagnostic information.

223. Durrell, Donald D. "The First Grade Cooperative Studies: History," Reading and Inquiry, 10, (1965), 477-479.

Recounts the history of Federal cooperation and funding for studying reading on first grade level.

224. Chall, Jeanne. "Different Approaches to Beginning Reading," Reading as an Intellectual Activity, 8, (1963), 250-254.

Presents an outline of the initial stages of a research study investigating different methods of teaching beginning reading.

225. Murphy, Helen A. "A Balanced First Grade Reading Program," Challenge and Experiment in Reading, 7, (1962), 33-36.

Makes recommendations for a balanced reading program discussing readiness, phonics, word analysis, testing, and basal reader series.

226. Sheldon, William D. "Effect of First Grade Instruction Using Basal Readers, Modified Linguistic Material and Linguistic Readers," Vistas in Reading, 11, Part 1, (1966), 205-208.

Presents brief results on one of the government sponsored First Grade Studies--the Syracuse University study aimed at comparing three sets of material designed for teaching beginning reading.

227. Silvaroli, Nicholas J. "Factors in Predicting Children's Success in First Grade Reading," Reading and Inquiry, 10, (1965), 296-298.

Indicates that identification of upper and lower case letters can be used to predict probable success in first grade reading.

228. Smith, Kenneth J. and Seifert, Joan C. "Developing a Scale to Determine First Graders' Attitudes Toward Reading," Vistas in Reading, 11, Part 1, (1966), 542-544.

Points out that the child who dislikes reading has little chance of becoming a mature reader.

## XI. READING IN THE CONTENT AREAS

229. Aaron, I. E. "Developing Reading Competencies Through Social Studies and Literature," Reading as an Intellectual Activity, 8, (1963), 107-110.

Discusses reading in Literature and Social Studies as a question of mastery of basal reading skills.

230. Arnsdorf, Val E. "The Influence of Indefinite Terms of Time and Space on Comprehension of Social Studies Materials," Challenge and Experiment in Reading, 7, (1962), 159-161.

Indicates that numerous studies have shown vocabulary as only one of the influencing factors of understanding social studies concepts.

231. Bamman, Henry A. "Developing Reading Competencies Through Mathematics and Science," Reading as an Intellectual Activity, 8, (1963), 110-112.

Discusses the problem areas of reading in the content areas of math and science: vocabulary, comprehension, rate, diversified materials, and making relationships.

232. Botel, Morton. "The Study Skills in Mathematics," Reading and Inquiry, 10, (1965), 89-92.

Explains the close connection between a mathematical sentence expressed in symbols and a life situation expressed in words.

233. Caudle, Jean I. "The Specific Reading Skills Necessary for Social Studies in the Elementary School," Improvement of Reading Through Classroom Practice, 9, (1964), 33-34.

Discusses nine reading skills which must be adapted to the specialized nature of social studies.

234. Coulter, Myron L. "Verbal Problem Solving in the Intermediate Grades," Reading and Inquiry, 10, (1965), 303-306.

States that special instruction in reading arithmetic problems appear to aid reading and arithmetic performance, especially arithmetic reasoning and fundamentals.

235. Coulter, Myron L. "Changing Concepts of Reading Instruction in the Content Areas in the Intermediate Grades," Changing Concepts of Reading Instruction, 6, (1961), 35-38.

Reviews reasons why reading is important to curriculum and pinpoints concept changes in the areas of arithmetic, science, and social studies.

236. Fay, Leo. "Reading Study Skills: Math and Science," Reading and Inquiry, 10, (1965), 92-94.

Concludes that elementary teachers must guide children in applying reading study skills in their content fields, especially math and science.

237. Henderson, Edmund H., and Long, Barbara H. "Self Social Concepts in Relation to Reading Arithmetic," Vistas in Reading, 11, Part 1, (1966), 576-581.

Suggests close relationship between achievement in reading and arithmetic and social orientation.

238. Herber, Harold L. "Reading Study Skills: Social Studies," Reading and Inquiry, 10, (1965), 94-96.

Discusses how teachers can help students transfer reading skills to social studies materials by providing motivation and purpose, guidance in using skills, and opportunity to react to new ideas.

239. Hill, Margaret Keyser. "Reading in the Content Fields," Combining Research Results and Good Practice, 11, Part 2, (1966), 19-28.

Outlines reading in the content fields by offering pertinent comments from experts in the field of reading.

240. Huck, Charlotte S. "Components of a Beginning Literature Program," Reading and Inquiry, 10, (1965), 68-70.

States that an elementary school literature program should be sequentially planned; as carefully as any reading or arithmetic program.

241. Huus, Helen. "Using Children's Books to Extend the Social Studies," Changing Concepts of Reading Instruction, 6, (1961), 186-191.

Presents five ways in which books help to strengthen understandings in social studies.

242. Huus, Helen. "Antidote for Apathy--Acquiring Reading Skills for Social Studies," Challenge and Experiment in Reading, 7, (1962), 81-88.

Hypothesizes that the answer to apathy in social studies is pupil skills, materials, and teacher attitude and preparation.

243. Janes, Edith. "Assessing the Reading Needs of Students in the Content Areas," Reading as an Intellectual Activity, 8, (1963), 97-100.

Emphasizes the importance of discovering range of abilities of all pupils in a given class in order to best provide for individual differences.

244. Jenkins, William A. "Reading Skills in Teaching Literature in the Elementary School," Improvement of Reading Through Classroom Practice, 9, (1964), 324-325.

Discusses ten vital reading skills that must be considered when teaching literature.

245. Larrick, Nancy. "Nature, Science, and Children's Reading," Changing Concepts of Reading Instruction, 6, (1961), 191-193.

Explains the four marks of excellence of children's science books and recent examples.

246. Massey, Will J. "Critical Reading in the Content Areas," Reading as an Intellectual Activity, 8, (1963), 104-107.

Demonstrates, through examples in Literature and Social Studies, the possibility of cultivating the child's ability in critical thinking and reading.

247. Roberts, Dodd E. "Paving the Way...," Reading and Inquiry, 10, (1965), 87-89.

Encourages all teachers to assume responsibility for integrating new and old reading skills into their content areas.

248. Root, Shelton L., Jr. "Literary Understandings in the Reading Program of the Primary Grades," Reading and Inquiry, 10, (1965), 70-72.

Generating a population of literate readers requires time to hear stories, to discuss books, to sit quietly and read, to share book experiences, and to learn from reading.

249. Simmons, John S. "The Reading of Literature: Poetry as an Example," Vistas in Reading, 11, Part 1, (1966), 93-100.

Suggests that children be introduced to poetry study by gradual transition from initial study of the novel and short story emphasizing the unique problems poetry generates in the classroom.

250. Sochor, E. Elona. "Developments in Reading Abilities Evaluation," New Frontiers in Reading, 5, (1960), 108-112.

Discusses the statistical treatment and the testing for reliability of three tests in content areas: The Intermediate Reading Test, Social Studies, the Intermediate Test, Science, and the Diagnostic Reading Inventory in Science.

251. Thompson, Evelyn S. "Sequential Skills of a Literature Program," Reading and Inquiry, 10, (1965), 72-74.

Defines the key skill in a student-literature program as critical thinking.

252. Wardeberg, Helen. "Teaching Reading Skills in the Content Fields--The Art of Questioning," Improvement of Reading Through Classroom Practice, 9, (1964), 34-35.

Suggests the skillful use of questioning as a means of developing and improving reading skills, in the content fields.

253. Whipple, Gertrude, "Implementing the Changing Concepts of Reading Instruction in the Primary Grades," Changing Concepts of Reading Instruction, 6, (1961), 29-32.

Presents a discussion of five concepts of reading growth which apply to all subjects and all levels.

254. Whipple, Gertrude. "Essential Types of Reading in the Content Fields," Improvement of Reading Through Classroom Practice, 9, (1964), 31-33.

Elaborates on the most fruitful types of content reading: silent, skimming, cursory, assimilative, and critical.

## XII. READING AND THE BILINGUAL CHILD

255. Bell, Paul W. "The Bilingual School," Reading and Inquiry, 10, (1965), 271-274.

Examines a school in which the goals and organization are geared to offering English-Speaking pupils the advantages of bilinguals.

256. Bell, Paul W. "A Beginning Reading Program for the Linguistically Handicapped," Vistas in Reading, 11, Part 1, (1966), 361-366.

Reveals the complexities of teaching linguistically handicapped children to read, and cites the Dade County, Florida, Public Schools as an example of a successful program of teaching bilingual children to read English.

257. Bumpass, Faye L. "Adapting the Reading Program to the Needs of Non-English Speaking Children," Vistas in Reading, 11, Part 1, (1966), 366-369.

Discusses the adjustments reading teachers must make when trying to provide adequate development of audio-lingual skills for non-English speaking children.

258. Bumpass, Faye L. "Helping Spanish-Speaking Children Acquire a Functional Use of English as an Aid to Reading," Changing Concepts of Reading Instruction, 6, (1961), 236-239.

Discusses the linguistic handicap of Spanish-speaking children and the language objectives, methods, and techniques that a teacher can use to help students master English.

259. Cline, Marion Jr. "A-V Aids for Spanish-Speaking Pupils," Reading and Inquiry, 10, (1965), 270-271.

Reports the results of a study involving 289 fourth-graders who were exposed to an extensive audio-visual program as a means of overcoming the language handicap of the bilingual.

260. Colbath, Edwin H. "Helping the Bilingual Child with Curriculum Experiences Involving Reading," Changing Concepts of Reading Instruction, 6, (1961), 242-244.

Discusses five approaches teachers may use to develop the reading ability of bilingual students so that they may use reading as a tool in other curriculum areas.

261. Goodman, Kenneth S. "Dialect Barriers to a Reading Comprehension," Reading and Inquiry, 10, (1965), 240-242.

Hypothesizes that the more divergence there is between the learner's dialect and the dialect of learning, the more difficult becomes the task of learning to read.

262. Kasdon, Lawrence M. "Reading and the Bilingual Child," Challenge and Experiment in Reading, 7, (1962), 90-92.

Reveals the relationship between culture and language, using a Hawaiian school as an example.

263. Poulos, W. T. "Developing Audio-Lingual Skills as a Basis for Teaching Bilinguals to Read," Vistas in Reading, 11, Part 1, (1966), 369-372.

Emphasizes the complexity of the whole oral language process, especially for non-English speaking children in English speaking schools.

## XIII. LINGUISTICS AND READING INSTRUCTION

264. Allen, Robert L. "An Approach to Better Reading Through the Recognition of Grammatical Relationships," Improvement of Reading Through Classroom Practice, 9, (1964), 224-225.

Explains a reading approach which enables a student to recognize important units in a sentence thus improving comprehension.

265. Betts, Emmett Albert. "Reading: Linguistic and Psychological Bases," Improvement of Reading Through Classroom Practice, 9, (1964), 20-23.

Suggests that effective reading instruction rests on research in the structure of language and in individual differences, motivation, perception, conceptualization, and thinking.

266. Bormuth, John R. "Validities of Grammatical and Semantic Classifications of Cloze Test Scores," Reading and Inquiry, 10, (1965), 283-285.

Reports the findings of a study in which cloze test responses were classified into seven categories.

267. Burrows, Alvina Treut. "Oral Base of Language Arts Teaching with Special Reference to Linguistics," Improvement of Reading Through Classroom Practice, 9, (1964), 113-114.

Discusses the current concern for, and research on, the relationship between oral language and reading.

268. Deighton, Lee C. "The Flow of Thought Through an English Sentence," Vistas in Reading, 11, Part 1, (1966), 322-326.

Explains how the various structuring of sentences helps deliver meaning to students and assists them in becoming mature readers.

269. Edward, Sister Mary P.B.V.M. "A Comparative Study of Reading Achievement at the Fourth Grade Level Under Two Methods of Instruction: Modified Linguistic and Traditional Basal," Reading and Inquiry, 10, (1965), 333-337.

Offers evidence in favor of a modified linguistic approach to teaching reading.

270. Glim, Theodore E. "What Linguistics Can and Cannot Say to a Reading Teacher," Reading and Inquiry, 10, (1965), 238-240.

States that linguistics has a place in reading as a source of information about sounds, structure, and dialects.

271. Ruddell, Robert B. "Variation in Syntactical Language Development and Reading Comprehension Achievement of Selected First Grade Children," Vistas in Reading, 11, Part 1, (1966), 420-425.

Outlines a research study which may contribute to the improvement of reading achievement and is aimed at providing increased insight into language variables of children.

272. Ruddell, Robert B. "Reading Comprehension and Structural Redundancy in Written Material," Reading and Inquiry, 10, (1965), 308-311.

Concludes that reading comprehension is a function of the redundancy of the syntactical elements used in written materials.

273. Strickland, Ruth G. "Concern for Research on Linguistics and Reading," Reading as an Intellectual Activity, 8, (1963), 183-185.

Reports that linguistics has much to offer in improving all aspects of language learning.

274. Wilson, Rosemary G. "A Linguistic Approach to Beginning Reading Based upon Fries' Principles," Improvement of Reading Through Classroom Practice, 9, (1964), 225-227.

Discusses one teacher's experiences in reconstructing her own thinking, and with the aid of her supervisor constructing materials, teaching, and developing a reading program based on the linguistic approach.

## XIV. READING AND THE DISADVANTAGED

275. Antley, Elizabeth Martin. "Socio-Economic Differences in Reading Interests," Vistas in Reading, 11, Part 1, (1966), 342-345.

Relates data of a study in a Negro school which disagrees with findings in the field regarding other socio-economic levels.

276. Black, Millard H. "Reading in a Compensatory Education Program," Improvement of Reading Through Classroom Practice, 9, (1964), 160-161.

Explains various reading programs brought about by the co-operation of school systems, government and social agencies.

277. Edwards, Thomas J. "Learning Problems in Cultural Deprivation," Reading and Inquiry, 10, (1965), 256-261.

Reviews six basic learning deficiencies and points out problem areas involving psychological and social adjustment of the disadvan-

taged child focusing attention on the teacher, volunteer, and parent as a mediator between the learner and his environment.

278. Figurel, J. Allen. "Limitations in the Vocabulary of Disadvantaged Children: A Cause of Poor Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 164-165.

Discusses the implications of the meagre vocabulary of the culturally disadvantaged.

279. Harris, Albert J. "Helping the Slow Reader Who is Educationally Deprived," Reading and Inquiry, 10, (1965), 173-175.

Reports findings of studies in which disadvantaged children are studied individually and intensively by clinical procedures and questions the effort made by the school to improve the reading of these pupils.

280. Harris, Albert J. "Teaching Reading to Culturally Different Children," Improvement of Reading Through Classroom Practice, 9, (1964), 24-26.

Surveys some of the important questions regarding the teaching of reading to culturally different or disadvantaged including readiness, content, age levels, and methods.

281. Lloyd, Helene M. "Progress in Developmental Reading for Today's Disadvantaged," Vistas in Reading, 11, Part 1, (1966), 35-39.

Recounts six accomplishments of educators and lay personnel in developing reading programs for the disadvantaged.

282. Mergentime, Charlotte. "Tailoring the Reading Program to the Needs of Disadvantaged Pupils," Improvement of Reading Through Classroom Practice, 9, (1964), 163-164.

Examines the lay program of the New York City Board of Education and the results of the efforts of volunteer help in reading instruction.

283. Mills, Queenie B. "The Pre-School Disadvantaged Child," Vistas in Reading, 11, Part 1, (1966), 345-349.

Identifies the truly disadvantaged child and his specific disadvantages in relation to beginning reading, describes some of his developmental and learning deficits, and suggests guidelines for teachers.

284. Poulos, William Toney. "Utilizing Foreign Language Instruction Methods and Techniques in Teaching Reading to the Disadvantaged," Improvement of Reading Through Classroom Practice, 9, (1964), 161-163.

Suggests procedures for teaching the disadvantaged non-English speaking youngster emphasizing oral language and relates these procedures to teaching all disadvantaged.

285. Sheldon, William D. "Language Skills of the Culturally Disadvantaged," Reading and Inquiry, 10, (1965), 255-256.

Suggests practical classroom activities to be used as a basis for a continuous program of language development from kindergarten to the twelfth grade.

286. Smith, Dora V. "Selecting Books for Culturally Disadvantaged Children," Vistas in Reading, 11, Part 1, (1966), 406-417.

Presents a wealth of good materials especially interesting to inner-city, culturally deprived, children.

287. Thomas, Dominic. "Oral Language of Culturally Disadvantaged Kindergarten Children," Reading and Inquiry, 10, (1965), 448-450.

Suggests the importance of oral language development in early grades, especially among the culturally disadvantaged.

288. Thomas, Dominic. "Our Disadvantaged Older Children," Vistas in Reading, 11, Part 1, (1966), 349-353.

Discusses home environments, language developments, patterns of intellectual functions, and motivations and aspirations as a basis for designing meaningful curricula.

289. Whipple, Gertrude. "A Perspective on Reading for Children Without," Vistas in Reading, 11, Part 1, (1966), 337-338.

Discusses three basic considerations in alleviating the results of deprivation with children from disadvantaged backgrounds.

290. Whipple, Gertrude. "Inspiring Culturally Disadvantaged Children to Read," Reading and Inquiry, 10, (1965), 253-255.

Explores the idea that reading programs for the culturally disadvantaged can give pupils the compensatory education necessary to break the poverty cycle and inspire the child to read.

291. Wirthlin, Lenore. "Practical Activities for Classroom Teachers--Grades 4 Through 6," Vistas in Reading, 11, Part 1, (1966), 340-341.

Suggests special teaching methods and materials to foster success in the mastery of the skills of listening, speaking, reading, and writing.

292. Wittick, Mildred Letton. "Culturally Deprived Children and Reading Achievement," Combining Research Results and Good Practice, 11, Part 2, (1966), 29-34.

States that socio-economic status is a controlling factor in reading achievement but that it can be coped with under the proper training situation.

## XV. READING IN OTHER COUNTRIES

293. Allen, Robert L. "English Primers Around the World," Reading as an Intellectual Activity, 8, (1963), 185-188.

Divides the majority of primers into two categories, whole word approach and word attack approach.

294. Downing, John. "Classroom Organization in England," Reading and Inquiry, 10, (1965), 397-398.

Indicates that English philosophy of reading instruction operates under freedom of choice of method for each classroom teacher.

295. Downing, John. "Experiments with Pitman's Initial Teaching Alphabet in British Schools," Reading as an Intellectual Activity, 8, (1963), 191-202.

Presents detailed research aimed at finding evidence on two essential questions: (1) is traditional spelling in English a cause of Reading Disability and (2) can children transfer from i.t.a. to a conventional alphabet?

296. Fareed, Ahmed A. "Reading Instruction in the UAR," Reading and Inquiry, 10, (1965), 392-394.

Traces the history of teaching initial reading in the United Arab Republic, revealing the unique problems which have arisen.

297. Fry, Edward. "Teaching Reading in East Africa," Improvement of Reading Through Classroom Practice, 9, (1964), 253-255.

Discusses the problems of teaching reading when there is a shift of language at about the third grade and explains the author's development of a ten-week reading improvement course for university and senior high school students.

298. Gelpi, Elsa. "Reading Instruction in Puerto Rico," Reading as an Intellectual Activity, 8, (1963), 208-211.

Discusses the problems involved in teaching in a bilingual culture and school situation.

299. Harris, Albert J. "Ivan and Johnny--A Critical Review," Challenge and Experiment in Reading, 7, (1962), 214-216.

Criticizes, strongly, Arthur S. Trace's book, What Ivan Knows that Johnny Doesn't, pointing out the flaws and faulty conclusions.

300. Malmquist, Eve. "Reading Instruction in Sweden," Reading as an Intellectual Activity, 8, (1963), 204-208.

Reveals that reading specialists in Sweden are coming to realize the importance of integration between reading growth and total child development.

301. Malmquist, Eve. "Reading Research in Scandinavia," Reading and Inquiry, 10, (1965), 399-404.

Offers a survey of reading programs, reading problems, and suggested practices in Denmark, Norway, and Sweden.

302. Mishima, Toshiko. "The Reading Program in Japan," Improvement of Reading Through Classroom Practice, 9, (1964), 259-260.

Discusses the general trend, viewpoint about, and methodology of reading instruction in Japanese schools and the implications of teaching Japanese writing which is based on three different sets of symbols.

303. Morris, Joyce M. "Developing Reading and Related Skills in the U.S.A. and the United Kingdom," Vistas in Reading, 11, Part 1, (1966), 190-194.

Lists similarities and differences in reading problems and practices in the UK and the USA, pointing out that similarities arise from common problems and objectives; differences from disparate financial resources and attitudes.

304. Morris, Joyce M. "Reading Backwardness in Relation to School Conditions," Reading and Inquiry, 10, (1965), 345-347.

Reveals startling information about the relationship between poor teaching and backward school conditions and reading problems in children.

305. Navon, Samuel. "Reading Instruction in Israel," Reading as an Intellectual Activity, 8, (1963), 211-215.

Points out the social, cultural-religious problems involved in reading instruction in Israel.

306. Robertson, Anne McKillop. "Reading: A View from West Africa," Improvement of Reading Through Classroom Practice, 9, (1964), 255-257.

Describes literacy problems, reading difficulties related to English as a second language, and psychological barriers to reading for the West African student.

307. Robison, Eleanor. "The Teaching of Reading in India," Reading and Inquiry, 10, (1965), 394-397.

Covers the scope of reading in India from 1947.

308. Schmidt, Bernard. "A Glance at Developmental Reading Outside the United States," Reading as an Intellectual Activity, 8, (1963), 215-218.

Cites five school programs outside the United States offering type of reading course emphasizing international confusion involved in terms and techniques.

309. Young, Nancy. "Reading in East Pakistan," Reading and Inquiry, 10, (1965), 391-392.

Reveals that standard Bengali is so phonetically constructed that anyone knowing the orthography can read with very little confusion.

## XVI. DIAGNOSIS AND TREATMENT OF READING DIFFICULTY

310. Brendemuehl, Frank. "Teaching Reading to the Handicapped Child," Reading and Inquiry, 10, (1965), 222-224.

Reviews guidelines by which reading programs for the handicapped might be evaluated and the role of the teacher and pupil in their implementation.

311. Bricklin, Patricia M. "Implementing the Changing Concepts in Remediation," Changing Concepts of Reading Instruction, 6, (1961), 67-71.

Discusses two major trends in the field of reading disabilities: a more widely accepted and more inclusive definition of the problem and the wider acceptance of reading disabilities as only one symptom in the ineffective functioning of the whole child.

312. Callaway, Byron. "Clinical Evaluation to Determine the Needs of Children," Vistas in Reading, 11, Part 1, (1966), 559-562.

Explains that IQ, family background, physical and emotional

factors, and test scores aid in understanding the child and in helping him overcome difficulties.

313. Chall, Jeanne. "How They Learn and Why They Fail," Improvement of Reading Through Classroom Practice, 9, (1964), 147-148.

Analyzes six reports of children who failed, in which the disability cases received initial reading instruction emphasizing different methods.

314. Cohn, Stella M. "Identifying and Diagnosing the Retarded Reader," Improvement of Reading Through Classroom Practice, 9, (1964), 144-145.

Discusses the physical, intellectual, personality, environmental and educational aspects of the diagnostic procedure.

315. Cooper, J. Louis. "An Adaptation of the Fernald-Keller Approach to Teaching Non-Readers," Reading and Inquiry, 10, (1965), 361-363.

Suggests that through using the adaptation of the Fernald Method the child will change his mode of learning words from VAKT, to VAK, to VA, to word analysis.

316. Craig, Isabel. "Developmental Tasks in Reading," Reading and Inquiry, 10, (1965), 25-26.

Indicates that the construction and use of a diagnostic test battery can give precise information on areas of poor development in children not making expected progress, in beginning reading.

317. Cutts, Warren G. "Brain-Injured Children Learn to Read," Changing Concepts of Reading Instruction, 6, (1961), 102-106.

Discusses two case histories of brain-injured children, giving their developmental history, educational history, evaluation of mental health, measure of intelligence, and the procedures used to aid them in their reading difficulties.

318. Dawson, Mildred A. "Prevention Before Remediation," Reading and Inquiry, 10, (1965), 171-172.

Considers three important concepts basic to a program preventing reading difficulty and stresses five policies upon which an effective reading program may be based.

319. de Hirsch, Katrina. "Constitutional Aspects of Reading: Reading and Total Language Disability," Changing Concepts of Reading Instruction, 6, (1961), 211-214.

Discusses the observations of the author which lead to the concept of a developmental lag or delayed neurological maturation and significant features of the language disturbance syndrome.

320. de Hirsch, Katrina. "Psychological Correlates of the Reading Process," Challenge and Experiment in Reading, 7, (1962), 218-226.

Suggests some structures and processes involved in reading in light of Gestalt psychology, trying to apply some general concepts to children with reading problems.

321. Delacato, Carl H. "Neuro-Psychological Factors as Causes of Reading Disabilities," New Frontiers in Reading, 5, (1960), 60-63.

Discusses the place of neurological organization as a remedial procedure for reading disability.

322. Early, Margaret J. "Diagnostic Teaching in Upper Elementary Grades," Vistas in Reading, 11, Part 1, (1966), 245-248.

Discusses the specific skills involved in aiding the classroom teacher to diagnose reading ills.

323. Googins, Duane G. "Helping Retarded Readers Within a Small School District," Reading and Inquiry, 10, (1965), 178-179.

Discusses the organization and implementation of remedial reading services in a small school district.

324. Johnson, Marjorie Seddon. "Common Needs in Clinical Cases," Reading and Inquiry, 10, (1965), 193-194.

Discusses the disabled reader's need to survive and his need for success as implications for the reading clinician.

325. Kephart, Newell C. "Reading Readiness in the Brain-Injured," New Frontiers in Reading, 5, (1960), 66-68.

Explains the importance of perceptual-motor matching and the problems which can be encountered in its development.

326. Kerfoot, James F. "An Instructional View of Reading Diagnosis," Reading and Inquiry, 10, (1965), 215-219.

Discusses diagnostic information, instructionally oriented, pointing out limitations and modifications possible with the use of informal procedures.

327. Kress, Roy A. "Diagnosis: An Interdisciplinary Approach," Reading and Inquiry, 10, (1965), 195-197.

Explores the many facets of a complete diagnostic study of a child's reading problem and focuses on three significant tasks of a reading clinician.

328. Lampard, Dorothy M. "Early Diagnosis of Reading Disability," Reading and Inquiry, 10, (1965), 191-193.

Discusses reasons for early diagnosis, three major categories of symptoms, and implications for diagnosis.

329. Laycock, Frank. "The Flexibility Hypothesis in Reading and the Work of Piaget," Challenge and Experiment in Reading, 7, (1962), 241-243.

Suggests that Jean Piaget's probing into children's intellectual growth has uncovered certain trends that may fit the problem of flexibility and rigidity in reading.

330. Malmquist, Eve. "Organizing Instruction to Prevent Reading Disabilities," Reading as an Intellectual Activity, 8, (1963), 36-39.

States that improvement of ordinary classroom teaching would diminish the number of reading disability cases.

331. McDonald, Mary Jane. "Room of Twenty," Improvement of Redding Through Classroom Practice, 9, (1964), 52-53.

Discusses the St. Louis Public School Plan for improving reading disability cases.

332. McLean, Marjorie Jean. "Insights on Counseling Needs as a Clinician Sees Them," Vistas in Reading, 11, Part 1, (1966), 220-223.

Views the many different directions counseling insights may take in establishing realistic goals for work with children.

333. Putnam, Lillian. "Prevention of Reading Difficulties," Vistas in Reading, 11, Part 1, (1966), 240-243.

Recounts eight practical suggestions that could contribute greatly to the prevention of reading disabilities.

334. Roach, Eugene G. "Evaluation of an Experimental Program of Perceptual-Motor Training with Slow Readers," Vistas in Reading, 11, Part 1, (1966), 446-450.

Concludes that perceptual motor training is not effective in raising reading achievement levels when training is given to small groups of six to eight children.

335. Robeck, Mildred C. "Children Who Show Undue Tension When Reading: A Group Diagnosis," Challenge and Experiment in Reading, 7, (1962), 133-138.

Reports research findings on the study of common characteristics of tense readers.

336. Robinson, H. Alan. "A New Concept of Remedial Reading," Reading and Inquiry, 10, (1965), 176-178.

Exposes five weaknesses of remedial reading programs and bases a new concept of reading instruction on the immediate psychological and educational needs of the student.

337. Robinson, H. Alan. "Trends in Identifying and Diagnosing Retarded Readers," Challenge and Experiment in Reading, 7, (1962), 61-65.

Screening for reading disability and planning for remediation of disability are two vital parts of a total reading program.

338. Roswell, Florence G. "Are Emotional Problems a Block to Reading Achievement?" Reading as an Intellectual Activity, 8, (1963), 139-142.

Concludes that emotional disturbance need not be a block to reading achievement - teacher interest, warmth, and preparation playing an important role.

339. Roswell, Florence G. "Psychotherapeutic Principles Applied to Remedial Reading," Improvement of Reading Through Classroom Practice, 9, (1964), 145-147.

Discusses constructive psychological principles used in remedial reading which enhance the self-concept of the child.

340. Schiffman, Gilbert B. "Diagnosing Cases of Reading Disability with Suggested Neurological Impairment," Vistas in Reading, 11, Part 1, (1966), 513-521.

Stresses the difficulty in identifying and handling reading disability cases.

341. Senz, Edward H., M.D. "Neurological Correlates in the Reading Process," Challenge and Experiment in Reading, 7, (1962), 217-218.

Presents a general picture of the problems involved in handling the handicapped learners.

342. Smith, Donald E. P. "Etiology of Reading Disability: The Neuro-Chemical Theory," New Frontiers in Reading, 5, (1960), 63-66.

Discusses the concept of adaptability assumed to be biologically determined, and its influence on severe reading disability.

343. Spache, George D. "Classroom Reading and the Visually Handicapped Child," Changing Concepts of Reading Instruction, 6, (1961), 93-97.

Explores recent changes that have occurred in thinking about reading and the visually handicapped child and examines the problems of etiology and symptoms in adequate diagnosis.

344. Tinker, Karen J. "The Role of Laterality in Reading Disability," Reading and Inquiry, 10, (1965), 300-303.

Does not support the view that laterality is a factor in reading disability.

345. Wolfe, Josephine B. "Eliminating the Practice of Using Non-Trained Personnel for Remedial Instruction," Vistas in Reading, 11, Part 1, (1966), 276-279.

Lists steps which are appropriate for professional programs and issues warnings to be heeded by all those connected with remedial reading.

1. Part II

Vol. 7, 62

## 5. The Teaching of Reading in the Intermediate Grades

A. Sterl Artley

The teaching of reading in the intermediate grades may be approached from several different angles. For the purpose of our discussion I choose to approach it by considering four points at which I would like to see more emphasis given in the middle-grade program.

First, I would like to see more attention directed to specific instructional goals in grades 4 through 6. In comparison to the primary program, that of the middle grades appears to be rather marshy and uncertain. We seem to be unsure of the direction to be taken. We might rationalize the problem by saying that in the middle grades difficulties exist that were not present on the lower level, or we may say that training courses fail to give adequate attention to the middle grade reading program. While both of these statements may be true, they seem to beg the issue.

A number of sources clearly define the scope and sequence of the middle grade program. Any textbook in reading methods devotes at least one chapter to this level, and outlines the instructional tasks to be undertaken. All of the yearbooks devoted to reading prepared by the National Society for the Study of Education have sections or chapters covering the kinds of reading growth expected of middle grade children. Guidebooks to instructional materials are very specific in terms of skill strands to be developed and levels of competency to be expected.

As I see it, the trouble is not so much in the unavailability of instructional guidelines for the middle grades, as in the fact that many teachers, and apparently some supervisors too, are not thoroughly convinced that reading instruction in grades 4 through 6 should be just as systematic, just as sequential, and just as much concerned with the development of



specific reading competencies as that in grades 1 through 3. In spite of all that has been said and written to the contrary, many persist in the idea that children learn to read in the primary grades, and, hence, need only to apply already acquired skills to new middle grade content. Though there may be a time in the day set aside for reading instruction we fail to direct it to the specific needs of individuals as is more frequently done on the lower levels. Consequently, there exists the "fourth grade hump."

In the second place, I would like to see a closer alliance between reading and the other language arts areas. Research shows clearly that language growth is unitary; that reading, writing, speaking, and listening are tied together by many common elements involving structure, purpose, and skill. This being true we should facilitate growth in one area by capitalizing on the reinforcement and support that each of the other areas may provide.

For example, where would one be able to find a better base from which to teach listening than that afforded by oral reading? And on the converse, where could one find a more potent motivation for effective oral interpretation than that given by a group of interested listeners. Moreover, the skills of listening are in many respects similar to those used in reading, since both areas represent the intake side of communication. Listening attentively to follow the organizational structure of a factual account requires very much the same abilities that one uses in reading thoughtfully to trace out the writer's main points and supporting details. Oral language growth, vocabulary development, correct usage, accurate articulation, and attention to sounds and structure are no more the instructional prerogative of one area than another. Consequently, we should explore more of the possibilities of teaching language by integration rather than by fragmentation.

The third area in which I would like to see more emphasis placed in the middle grades is critical reading. Critical reading has been defined by many people in different ways. Some have assumed it to be a high level of thoughtful reading involving the ability to generalize, to search out idea relationships, to determine the author's purpose, and the like. Though it goes without saying that these are all very important abilities, they are not necessarily abilities in critical reading.

Critical reading as defined by the recent edition of the *Encyclopedia of Educational Research* is the "ability to make evaluative reactions, including an attitude of inquiry concerning the value, the quality, and the accuracy of what is read. . . ." Said in another way, a critical reader weighs the ideas. He assesses the worth of the material. In short, he evaluates it against some criteria, either assumed or stated. For example, the teacher may ask at the conclusion of a story, "Would you have behaved the way Kitty did under similar circumstances?" To answer the question the reader must evaluate Kitty's behavior against the norm of his own behavior. The end result is a careful consideration of the desirability of a certain way of acting—his versus Kitty's.

If there ever existed a time when young people should be trained to be critical in their reactions, it is now. From all sides and by all media they are bombarded by ideas, philosophies, "isms," and panaceas. Many are poorly conceived; others are the projects of vested interests; still others are the products of biased and warped thinking. Unless one has been trained to weigh and judge with extreme care, to withhold a judgment until he thoroughly comprehends the proposed idea, and to develop adequate criteria against which to judge it, he will be an easy target for propaganda and pat solutions. It is through our teaching of critical thinking through reading that we have a chance to combat propaganda and blind acceptance of what is read and heard.

Finally, I would like to see more attention given to reading as a means of promoting personal and social development. Unfortunately we get so concerned over the skills side of reading with its emphasis on word perception, readiness, and comprehension that we lose sight of why reading is being taught.

Skills are important, there is no escape from that fact, but the really important goal is the change in the individual in terms of clearer insights, modified or reinforced attitudes, and heightened emotional responses—in short, personal and

1.

social development. One may know all the phonic principles there are to be known, and be able to perceive meaning with depth of understanding, yet fail to see the relation between facts and skills on the one hand, and the way he must live and get along in this complex world, on the other. To crudely paraphrase a Biblical verse, "What doth it profit the man to know all there is to be known about reading, yet miss the values that are inherent in it?"

If growth is to take place toward the attainment of accepted cultural patterns, attitudes, and behavior it is obvious that the reading content itself must be rich in values. Comics, serial books, and lurid drugstore paperbacks can hardly suffice as a diet on which to promote personal growth. Story quality is important and no flimsy, whimsical tale, even though garbed with clever illustrations, can be considered an adequate substitute.

But something in addition to story quality is necessary if values are to be caught from the reading. Values are extracted by a depth and quality of reading that has to be stimulated and developed. Perhaps the key to this kind of reading is identification. The reader who is more likely to be affected by what he reads is the one who is able to lose himself in time and space and become an actual participant in the action taking place. Reading becomes for him an activity that has all the qualities of a first-hand experience. Experiencing richly the imagery of sight, sound, taste, and kinesthesis is another aspect of identification that can be developed in young readers. Helping them react to a story critically or emotionally is still another way of enabling them to get inside the content and to become an active participant. Through rich experiencing and close personal identification the child grows *through* reading.

In discussing these four points of emphasis there is no assumption that there are not others of equal importance. It does seem to me, however, that many of our middle grade problems do lie in our failure to sense fully the tremendous job to be done on the intermediate grade level, and to assume the equally tremendous responsibility in seeing that the job gets done. It is with this concern in mind that these pressure points are suggested.

2.

## B. UPPER ELEMENTARY LEVEL

### 1. Developing More Effective Readers

HENRY A. BAMMAN
Sacramento State College

AS I VIEW THE activities in reading during the past year, and as I reflect on the frenzied attempts of teachers and administrators to meet deadlines for submitting applications for funds to implement reading programs, I wonder if perhaps we have not, in our preoccupation with criteria, materials, in-service training, and a dozen other deliberations, neglected the person for whom all of this activity is intended: the child in our classroom. I have participated in dozens of conferences with school districts that have attempted to meet deadlines, and I have sensed the frustration, concern, and disenchantment of those who have finally concluded that additional funds, additional materials, and equipment simply are not going to answer our fundamental curriculum questions as to what constitutes the most effective and efficient means of training a child to read. True, with additional funds we are able to reduce the size of classes in those instances where we can clearly identify economically disadvantaged children; it is also true that additional materials (and we have never before in the history of American education had so much to select from) will implement our teaching of reading; it is true that we are now in a better position to support in-service training of teachers. But, are we, except in rare instances, more clearly identifying the means by which we may do better teaching and the methods and techniques which may yield better results?

Are we going to be able, within a period of a few years, to furnish evidence that money, effort, and materials have resulted in better readers? It seems to me that we *must;* otherwise, we will have merely furnished additional evidence to those critics of our educational system who during the past decade have maintained that we are not teaching reading properly. We have responded to the critics and listed overcrowded classrooms, mobility of children, undertraining of teachers, and lack of sufficient funds for materials and equipment as reasons for the problems which we admit do exist in the teaching of reading. Are we, now that we have additional funds for solving those particular problems, in danger of becoming complacent and continuing to overlook the basic problem of pedagogical and psychological factors that may contribute to improved reading programs? Certainly we are in a better position to foster research, to encourage innovations in methods, materials, and classroom organization. We can and we must examine more thoroughly than ever before exactly what it is we mean when we speak of developing more effective readers.

What are we referring to when we speak of efficiency and effectiveness in reading? Perhaps we can begin to explore this by describing what I believe is an effective reader.

The effective reader is one who has mastered the skills of attacking words, simultaneously employing phonics, structural analysis, and syllabication to the point of having established a broad sight vocabulary and using those skills judiciously each time he encounters a new, unfamiliar word. In the beginning, the reader employs all of the cues available to him; as he becomes more efficient in attacking words, he deliberately reduces cues. Word attack skills are virtually at the sub-conscious level, except for those times when the reader must consciously summon his knowledge of analysis and use his skills to pronounce and gain meaning of new words. We need to know, through careful research, what contributions can be made to word analysis skills through linguistics, programed learning, non-traditional orthography, and other means that have not been thoroughly explored. We agree that word-calling is the basic step in the spectrum of reading skills; however, it is so easy to be misled by efficient word-calling and to assume that if the child has that skill,

he is a good reader.

The word-caller becomes a more effective reader when he applies his skills of word analysis to the development of a rich and varied vocabulary and experiences through reading of a wide variety of materials the range and quality of word power. He examines the multi-functions of words, thrills at the author's choice of words that uniquely communicate time-worn ideas and make them startlingly new and provocative. He pursues the rich and varied histories of words as they have been used to relate the evolution of ideas; and he perceives language as a rich fabric into which good writers artfully weave their sensations, their perceptions, and their concepts.

There have been hundreds of articles written about the development of vocabulary, but how many of these articles have we translated into classroom practice? Are we not, as teachers, guilty of too much emphasis upon the synonomy and denotations of words, simply because of convenience? What are we doing to acquaint our children with the historical aspects of language and semantics? Are we engendering in our classrooms a sense of excitement and wonder about what language can do for and to the lives of our children?

As early as 1917, Thorndike published his study of the ways in which children may misinterpret what they read. He pointed out that the reader becomes so preoccupied with the overpotency of certain words that he misses the message of the writer. Russell's more recent study of children's thinking has underlined Thorndike's original thesis. The reader who reads with a purpose employs thinking and can calculate what is relevant or irrelevant to his purpose. He sees not only the obvious, surface meaning of what he reads, but he plunges below and searches out to the periphery of what he reads. He assumes that he must bring to the printed page both experiences that have been directly gained and those that have come from vicarious sources. He demands that the printed page say something to him and sets aside his own judgment until the author has been granted a full hearing. He does not focus on details alone, nor is he content to identify the main idea unless he understands and sees details in relationship to the main idea. The types of questions which are asked by the teacher may determine whether the child develops habits of inquiry as he reads. If questions are posed which require nothing more than a return-in-kind of the author's statement, only memory, and not thinking, is encouraged.

Using his past experiences as a touchstone, the efficient reader evaluates what he reads. He responds creatively to the author; he has a choice of imitating what the author has said or taking the ideas and modifying, supplementing, or rejecting them on the basis of his own past experience and knowledge. Using his experiences occasionally as a basis for a real argument with the writer he assumes the responsibility of setting up a conversation with the author. Sometimes the inexperienced reader fails to grasp the significance of what a writer has said because he is not skilled in reading between the lines; he reads literally what is clearly stated and fails to realize that the author has implied ideas that he assumes the reader should be able to grasp. Many of the materials which have been developed to aid children in becoming more evaluative fail miserably in providing the proper stimulus. For the sake of convenience, questions can be answered with a word or two, or by a selection of alternatives. The child is not faced with the problem of "digging out" on his own the ideas expressed by the author. In the final analysis, the child should be able to answer such questions as "What ideas does the author express that modify or support my thinking?" "What have I learned from this selection that gives me broader understanding of the topic?" or "What, precisely, does reading this selection mean to me?"

The effective reader is one who disciplines himself to read with the whole intent of his mind. He realizes that true reading is more than a cursory encounter with ideas; he approaches each act of reading with the full intention of gaining something, whether it be pleasure or information—two categories that need not be mutually exclusive. In the average home or school, the child must select

among many media for learning; he must learn to shut out the cacophony of the television, the radio, conversations and discussions of fellow students and family members, and other extraneous noises in his environment in order to give full attention to a book. A critical factor in good study skills is overcoming distractors that pull one from the reading act; the book offers one advantage that other media of communication do not: one may return again and again to the book, in all types of situations, and find it unchanged. Further, with the book the reader may set his own pace; he may, in the words of Browning, "plunge soul-forward, headlong into the book's profound." The reader may establish a personal relationship and a conversation with an author that may be maintained throughout a lifetime.

The effective reader is one who becomes increasingly sensitive to the styles of the writers he meets. He learns to judge good writing and to reject writing that does not meet the standards of his own choice. He senses the color, the tempo, and the tone of good writing. Through reading all types of literature—the good and the bad, the mediocre and the outstanding, the contemporary and the classical—he may establish for himself the standards by which he might judge excellence. Our job as teachers is to introduce the child to all types of literature and to guide him in developing judgment. Critical reading is frequently an individual, not a group, process. However, the young reader should have countless opportunities to discuss his ideas with others, under the careful guidance of a teacher whose lessons are problem-centered. The teacher sets the pace, provides the opportunities for problem solving, and frequently asks the questions. But, if he is to become a critical thinker, the student must ask his own questions and seek his own solutions. He must learn that there are no easy solutions to great problems; he must be led to examine hidden assumptions, to evaluate the logic of writers, and to suspend his judgment until all of the facts have been gathered. Having arrived at this point, he should learn that there are no prescribed boundaries, no real terminal points for most learning. The solution of a problem, offered by one writer, should lead the young reader to a consideration of alternatives that will require reading the works of other authors and engaging in more thoughtful research.

The effective reader is one who regards speed of reading as a mere convenience for doing more reading, rather than as an end in itself. He has learned to adjust his rate of reading to the purposes for which he reads, to the familiarity of the content, and to the very nature of the writing itself. He knows that there is no one acceptable rate of reading that will sustain him in all of his reading; he is content to read some things with the speed of the wind, while at other times he reads with deliberate attention to each word, each phrase, each sentence, with no regard for the time consumed in reading the selection. He is much more concerned with the number of ideas per page than with the number of words per minute.

The effective reader learns to read to remember. He learns to file, to retrieve, and to refile information with ease. He becomes systematic in the search for knowledge. He extends his reading skills to gathering information, organizing information, and reporting information accurately. Through skillful organization and assimilation of ideas, he develops good learning habits for remembering what he has read and being able to associate what he has learned with new ideas.

The effective reader reads widely and frequently. He applies his skills throughout the day to all areas of the curriculum. Through the years he will associate with the greatest minds of all generations. Through reading the works of men and women, he associates with people who are wiser and more experienced than he. His young mind stretches toward adulthood and anticipates the role that he may eventually play in his own adult life.

These, then, are some of the ideas concerning the goals we are seeking in improving our reading instruction for developing more effective readers. How clearly the child sees these goals will depend upon the skill of the teacher; money, materials, equipment, and classroom organization *may be* the means by



which the teacher and the child more efficiently achieve these goals.

5.

Vol.7, 63

3.

## II. Beliefs and Practices of Teachers in Elementary Reading

172.

ALLEN BARTON

As part of the Columbia-Harvard study, about 4,000 questionnaires were mailed to a random sample of over 300 public elementary schools throughout the United States. Returns were received from about half the schools and about 30% of all sampled teachers. Our schools correspond closely to true population figures in most objective teacher and school characteristics, but of course the very fact of cooperation in a research study suggests somewhat higher quality and professional attitude.

### Materials in Reading Instruction

Reading instruction in almost all schools starts from a similar basis: basic readers from a graded series are used by 90% of first grade teachers and by 92 to 84% of second and third grade teachers, on "all or most days in the year." In addition to this base however somewhat different kinds of supplementary materials are used. About a third of the primary grades use "children's story books which are not part of a reading series" on all or most days. About a third use special books for slow readers on all or most days. A quarter of the first grades use experience charts based on the children's activities or interests on all or most days. Library work in school or public library is used on "many" days in 40% of the first grades, rising to 65% in sixth grade. Field trips are used more than just once or twice a year in 35% of first grades, falling to 23% of sixth grades. Films or filmstrips for reading instruction, television for reading instruction, reading machines for improving speed or training eye movements, and kits of graded individual exercises ("reading laboratory") are used on all or most days in less than 4% of the grades from 1 through 6. These devices are as rare as basic readers are universal.

Almost all classes have a classroom library, but only 10% of first grades and 30% of higher grades have 75 or more books in it.

The teachers' opinions place great emphasis on the desirability of three things: a basal reading series, a classroom library of many varied children's books, and high-interest reading material for retarded readers.



**Table Number 1**

Per cent of teachers saying each kind of material is "very important" or "absolutely essential" for teaching reading at their grade level.

| | GRADE 1 | GRADE 2-3 | GRADE 4-6 |
|---|---|---|---|
| A basal reading series | 95% | 95% | 88% |
| A classroom library of many varied children's books | 88 | 91 | 90 |
| High-interest material for retarded readers | 79 | 86 | 88 |
| A second, additional basic reading series | 75 | 67 | 60 |
| A separate school library with a large collection of books | 64 | 71 | 80 |
| Graded workbooks | 60 | 63 | 54 |
| Readers from still other basic reading series | 60 | 49 | 36 |
| Reading machines for training eye movements, film projectors, etc. | 29 | 31 | 38 |

### Practices in Reading Instruction

Has the whole word method driven out phonics?

Some sort of phonics is universal—and so is some sort of whole-word method. In the first grade, 90% of the classes "learn new words as wholes" on half or more of the days; and 82% of the classes "learn to sound out words from letters and letter-combinations" on half or more of the days. The frequency of a variety of word recognition practices are given in Table 2.

### Teacher Opinions

What is the relation of teacher opinion to the main currents of expert opinion in the reading field?

One conflict of a generation ago was whether there was a fixed age for beginning reading instruction, or whether individual differences in development made different ages desirable. Almost all teachers now hold the latter viewpoint: 89% believe it desirable for some children to start actual reading instruction before age 6, and 87% believe that some children should not start actual reading instruction until age 7.

A general question on the type of phonetic training found one-fourth of first grade teachers and one-third of teachers from second grade on favoring "a systematic program to teach the rules for sounding letters and letter-combinations using special class periods and exercises." Almost all the rest favored "a program of teaching the sounds of letters and letter-combinations mainly as they appear in words in the children's reading, but arranged to cover all the major rules of sounding." Only 3% want to limit phonetics to "teaching the sounds of letters and letter-combinations to some children who need it, when occasions make it necessary," and no one favored "as little teaching of phonetics as possible."

On the question of when phonetic training should begin, it is possible to

6.

**Table Number 2**

Per cent of teachers saying they use each practice on half or more of the days of the year.

| | GRADE 1 | 2-3 | 4-6 |
|---|---|---|---|
| *Whole-word practices* | | | |
| Learning new words as wholes from flashcards, blackboard, or readers | 90% | 83% | 61% |
| Learning to use context or picture clues to guess new words | 83 | 75 | 54 |
| Using the outline shape of the word as a means of recognition | 50 | 34 | 19 |
| Noticing special features like tall letters or double letters as a means of word recognition | 63 | 49 | 22 |
| *Phonetic practices* | | | |
| Learning to sound out words from letters and letter-combinations | 82 | 94 | 64 |
| Noticing similar sounds in words and relating them to the letters | 86 | 85 | 54 |
| Systematic learning of rules for sounding letters and letter-combinations | 37 | 64 | 43 |
| Learning to divide words into syllables | 9 | 56 | 73 |

make an interesting comparison between teacher opinions and those found in the educational literature. We were somewhat surprised to find how many first-grade teachers believed that "most children should start to be taught the sounds of letters and letter-combinations" without waiting for the acquisition of a sight vocabulary of 50 to 100 words learned as wholes:

11% "before they start learning actual words"
40% "at the same time as they learn their first words"
41% "after they have learned to recognize 50-100 words as wholes"
4% "after they have learned to recognize several hundred words as wholes"
0% "not at all during the primary grades"
4% were undecided or made no answer.

Furthermore, the advocacy of starting phonics without first developing a sight vocabulary was higher among the more recently trained teachers:

**Table Number 3**

Advocacy of "early phonics" by years of experience (Teachers in grades 1-3.)

| 25+ years (pre-1937) | 10-24 years (1936-1951) | Under 10 years (1951-1960) |
|---|---|---|
| 43% | 57% | 63% |
| (147) | (256) | (311) |

We can compare this trend with that found in professional textbooks on reading instruction.

**Table Number 4**

Textbook opinions on when to begin phonics.

| | Pre-1935 | 1936-1945 | 1946-1955 | 1956-1961 |
|---|---|---|---|---|
| Some sight words first | 63% | 83% | 78% | 87% |
| Total | (8) | (6) | (9) | (15) |

There does not seem to be any trend in the textbook literature which matches the trend among teachers; the books in all periods but the earliest are overwhelmingly in favor of developing an initial sight vocabulary (about half specifying 50 or more words, the rest vague things like "an adequate number"). Perhaps the teachers

are responding to influences outside the regular teachers-college texts—phonics is "in the air."

## Social Influence on Opinion

In an attempt to locate influences on teacher attitudes, we included a number of questions about various kinds of social and professional contacts. For certain of these contacts—the principal, and the teacher's colleagues—we know their actual opinions too from having their questionnaires.

The principal's opinion has considerably more influence on the teacher when there is frequent discussion of the problem of reading instruction. It also suggests that principals favoring early phonics are more influential on teachers than those favoring delayed phonics; perhaps the former is a more "positive" position. However it is clear that the teachers are not simply rubber stamps for the principals' opinions; given frequent discussion of the issue, it looks as though a principal can move about one-eighth of the teachers toward his position, whichever it is; the rest remain where they were.

It is worth noting that the principals split just about 50-50 on the issue, while the majority of teachers favor early phonics. The principals are just like the older teachers in their opinions—and indeed most of them belong to that age group. The principals are therefore not likely to be the source of the influence which is making the younger teachers favor earlier introduction of phonics. If we compare younger and older teachers under the varying conditions of principal contact and attitude, the age differences remain in all cases but one; principals who favor early phonics and have much contact with teachers apparently have influenced the older teachers to become like the younger ones.

A further sidelight on the problem of influence is that "opinion-leader" teachers (those who report that other teachers ask their opinions on problems of teaching reading at least once a week) are more likely to favor early phonics than are rank-and-file teachers. Other types of teachers who favor early phonics are: "harder" teachers, who would fail or transfer to a lower grade pupils who don't keep up in reading; teachers who follow the manual of the reading series closely; teachers who advocate "training the mind" as the goal of education; and teachers in the higher grades, 4 through 6.

## Pupil Performance

We have said that this is a study of the flow of information and opinions about reading instruction, rather than a study of the effects of various practices on the pupils. We did, however, ask the teachers to report to us the class average reading level, and to indicate on what basis and when this reading average was obtained. We are still trying to refine this rather crude measure of pupil performance. One finding, however, stands out beyond any debate. This is the overwhelming importance of the parental socio-economic status on reading achievement; this one factor far outweighs any differences of methods or materials which we have examined.

In reporting class reading averages teachers say that the *class average* is a year or more below grade level in the majority of classrooms composed predominantly of lower-income children, from the 4th grade on; while only 5% of the upper-income classrooms are so retarded. Conversely, about two-thirds of the upper-income classrooms are a year or more above grade level *from the first grade on,* while only about 10% of the low-income classrooms are so advanced. The upper-income children maintain their year-above-grade level; the lower income children fall increasingly behind. By sixth grade there is a differential of two years or more between the majority of upper-income and the majority of lower-income children. This is the mark which a class society imposes on its children; only a strenuous "counter-class policy" could hope to redress the balance.

How do educational practices bear on achievement within this context of class differentiation? One of the practices which was most highly related to achievement—although whether it is a *cause* or a *consequence* of achievement cannot be demonstrated from the survey data—is that higher achieving classes may be allowed to use the library *because* they are high achieving.

Obviously those who appear to benefit most from this added facility are those who are already very high in achievement.



8.

We are investigating a large number of practices in this way; it would be especially interesting to see if there are any which especially benefit the lower-class children.

4.

for Living in the 1980's." Needless to say, to live in the '80's, reading competency must be raised. If we can raise the level of reading competency approximately one year within the next decades, a real renaissance in education awaits the '80's. Leadership from *you* can make such a renaissance possible.

We cannot discuss reading improvement without viewing the world in which we live. This concerns me greatly. The demands of our cybernated society are exacting; requiring a labor force and an electorate with considerably higher education than now prevails. Yet, are we providing and making future provisions for progressive substantive changes? Are we, as a nation, which idealistically has sought to be exemplary to others and which pragmatically desires to be independently competitive, concerned in providing rich, educational programs for all pupils. If we are, we should not have the accumulation of permanently unemployed in our economic structure.

We know that whether democracy rises or falls depends upon equality of educational opportunity. Certainly, equal educational opportunity cannot exist if pupils are not provided with the experiences they need to reach their potential in reading. Last year, Dr. Donald Durrell reported to this group the reading achievement of 200 first-graders in the town of Lynnfield, Massachusetts. The first-graders in this group made an average achievement of 3.2 on Metropolitan Reading Tests in June. Ninety-two per cent, or 192 of the 200 children were reading above second-grade norms. Remarkable! How can superintendents of other schools produce comparable results? One way to make real progress is to provide leadership in offering quality in-service programs.

Leadership in the teaching of reading at the state level can make a difference too. The State Council of Education in Pennsylvania established reading as its first priority in curriculum development. The Council now requires that each elementary school have a school library, has set standards for elementary library service to include all instructional materials, has "upped" requirements for secondary school libraries on a broader scope, demands that developmental reading be

Vol. 8, 63

## 2. Reading Today for Living in the 1980's

20.

CHARLES H. BOEHM

After attending the many meetings of this convention, you can unequivocally attest that this conference has been dedicated to the improvement of reading instruction in our schools, the schools that are teaching the reading citizenry of the next decades. Such a focus makes my assignment most appropriate because I am to discuss with you, "Reading Today

8. 9.

taught in grades seven and eight, and requires that all secondary school academic teachers have basic pre-service experience in reading instruction prior to certification. The State Council has also employed a full-time staff member to work with our 77 teacher training institutions in improving their reading offerings. Improvement is to be based on research designed and developed with cooperating institutions.

Pennsylvania was active in seeking federal support and assistance for improving instructional programs. As a representative of the state, I testified before the Bailey Committee, indicating that the categorical aid offered by the National Defense Act "fell short" of its stated objective. It failed to recognize the role of reading skills and written composition in undergirding our manpower.

In redesigning college campuses in Pennsylvania, plans will call for at least $2,000,000 or more to be allocated for library facilities. Reading clinics and provisions for in-service training will be part of the Reading Service Program to schools and classroom teachers.

I have great faith in our classroom teachers. They want to improve the reading of their boys and girls. They plead for help. They are eager for able, instructional leadership. They have the moral right to expect it! The question is, "From whom should they expect it?" Is it the responsibility of the institutions who train our teachers, the local districts for whom the teachers work, or their state department of education? To me, each has a responsibility.

The Harvard-Carnegie Group reported in their study, "The Torch Lighters," that teacher training institutions have permitted teachers to have only a meager general background in reading. At the same time, they recommended a more intensive specialized reading program for the education of teachers. To accomplish this, we would have to wait until 1985 for improvement of reading in our schools unless there is a sufficient "turnover" in our teaching personnel. We cannot wait! Our reading programs must be stepped up! The following must be done:

1. Provide intensive in-service programs in reading for teachers and specialists. Frankly, I prefer to think of reading specialists as reading generalists. I have found that reading becomes a part, rather than a segment, of the total school program when a specialist brings to a school a broad background of experience as well as special training in reading.
2. Surround boys and girls with a wealth of books, wide and varied in interest at home and at school. Elementary school libraries should be required in all elementary buildings.
3. Plan a developmental reading program for all pupils in grades 1-12.
4. Evaluate the reading experiences we are offering our pre-service and graduate students.

## Important Keys of Reading Instruction

Some claim that there is evidence that reading instruction is no better today than it was one or more generations ago. Whatever we want to believe, we must admit that not all teachers in all communities are using all of the "keys" of modern knowledge about learning to read. May I, then, discuss with you those "keys" that appear to be most important to us in terms of current practice regarding (1) individual differences, (2) reading, one aspect of language, (3) interests, (4) thinking, and (5) word indentification and vocabulary development.

### *Individual Differences*

Although there are many published reports on the subject of individual differences and the principles of providing for individuals among pupils are generally known, we still have some pupils who are still receiving uniform daily diets of instruction from the source text. Such teachers are struggling to find the educational answer to the query: "How can we organize reading programs to care for individual differences and the differences within each individual?" Of course, this is not true of all teachers. Many are teaching pupils when they are ready, whether they are in the kindergarten, the first grade, or a higher grade. They know

that beginning formal reading instruction is not dictated by a grade level or an age level. Too, levels of reading instruction are no longer mandated by standardized tests. They have a place in a reading program but systematic informal reading inventories and sound teacher judgment are given equal consideration. Professionally competent leaders also recognize that a three-group plan prescription for every classroom is a poor method of providing equal learning opportunities for all pupils. They encourage their teachers to use varied plans of individualized and group instruction in providing for individual differences. At the same time, they make a *marked distinction* between the terms individualized and group "methods" and individualized and group "plans" for individual differences.

### *Reading, One Aspect of Language*

Another important key is to remember that reading is only one aspect of language—the third aspect. It is preceded by *listening* and *speaking*. It is followed in sequence by *writing*. Therefore, teachers must understand and appreciate the *listening, speaking* and *writing abilities* of pupils if they are to understand their *reading abilities*. It is a tall order. To help pupils to prepare for the '80's, teachers must know the kinds of skills necessary to listen socially, secondarily, aesthetically, critically, concentratively, and creatively. They must know the skills and techniques necessary for helping and encouraging pupils to do the following: (1) speak clearly and distinctly, (2) develop an adequate vocabulary for the world in which they live, (3) use acceptable and appropriate language, (4) vary their sentence structure, yet keep their sentences clear-cut and interesting, (5) organize their thoughts before speaking, and (6) be spontaneous with critical and creative ideas. Pupils need guidance in learning to write. An effective writer is one who (1) uses adequate and appropriate vocabulary for "his times," (2) is creative, (3) uses acceptable and appropriate language, capitalization, and punctuation, (4) presents well-organized ideas, (5) spells correctly, (6) write legibly, and (7) proofreads what he writes. Unless reading is presented as described, as one aspect of language, it cannot be effective. The teaching of reading *must be* presented in a general language development setting.

### *Interests*

Developing lifetime interests and tastes in reading is a major goal of reading instruction. Some kill it! Others nurture it! Although some protagonists would like to attribute the success or failure of interest in reading to a particular plan or a particular method, they fail to remember that *plans* and *methods* do not do the work. *Plans* and *methods* work when the competent teacher uses the best of *all plans* and *all methods*. Whether a pupil's interest in reading is being raised or silenced will depend upon the attitude and competency the teacher reveals in (1) understanding him as a human being as well as understanding his interests, (2) supplying a wide and varied range of readable materials, (3) providing a favorable environment conducive to fostering a desire to read, and (4) guiding his parents in his reading activities and interests.

### *Thinking*

Those who think, read! Those who read, think! Although teaching pupils to think is an important "key" of reading instruction, there is ample evidence that this goal is not being developed. Pupils who have learned the mechanics of reading far outnumber those who have learned how to think. According to Betts, the thinking facet of reading instruction is based on four fundamental considerations: (1) thinking in reading results in comprehension, (2) thinking in reading is thinking in a language, (3) thinking in reading is required for relationship to take place between the reader and the author, and (4) thinking in reading is required if skills are used for a specific purpose. Because thinking cannot be mechanized, many pupils are deprived of the privilege of being taught to think. However, competent teachers can stimulate their pupils to think within the limits of their potential. Literally, our real business of teaching pupils to read is teaching pupils to think. They will need to think in the 80's. They need to think today.

*Word Identification and Vocabulary Development*

Word identification and vocabulary development are two important keys to reading instruction. Underemphasis or overemphasis of either or both depends upon the emotions of the teachers or the educators and journalists with whom the teachers are surrounded. We know that to read a word is to recognize it, know what it means, and use it. To recognize a word, a pupil must be supplied with a multiplicity of methods. Telling a pupil a word is not a method. Systematic and sequential instruction in such skills as structure analysis and phonetics analyses is needed. The issue should never be one of "phonics" or "no phonics." It should be "how to teach phonics." The same is true in developing vocabulary. Telling a pupil the meaning of a word is no assurance that his vocabulary has been extended. However, the teachers who develop concepts, by helping children organize their own personal experiences and by leading them to their own verbalization of their experience, will be yielding a vocabulary for their pupils to use in the '80's.

## The Challenges Ahead!

As I reviewed the five important "keys" of reading instruction, I kept inquiring of myself, "How can the professionals attending this conference help improve reading instruction in their schools? What challenges lie ahead for them?" Frankly, I found it difficult to know where to begin "suggesting" about a subject that offers so many challenges. But, after some thought, I decided it logical to start with improvement of classroom teaching.

*Teaching in the Classroom*

I believe that the greatest challenge that confronts us as teachers of reading is the improvement of classroom practice. Although many questions remain unanswered, there is sufficient knowledge for us to use in improving the quality of reading service. Current writings indicate this. Russell in his article, "Reading Research That Makes a Difference," (*Elementary English,* February 1961) listed ten major studies which have widely influenced reading over the years. Of course, teachers will always continue to ask, "How can I know and help every pupil with thirty or more pupils in the classroom? How can I provide each one with the best possible instruction in reading?" Although the task is not an easy one, competent teachers accomplish it. Their pupils learn to read. Unfortunately in our schools we have three kinds of teachers as we have three kinds of pupils—the able, the more able, and the less able. Each can be identified. Criteria can be established for observing teachers or for interviewing them when the pupils are not present in the classroom. A list of questions that has proven effective in distinguishing the superior teacher of reading from the poor teacher of reading includes:

1. Do you understand the reading process?
2. Do your pupils enjoy reading?
3. Do you know the role your school is accepting in developing a society of readers?
4. Do you surround your pupils with wide and varied reading materials?
5. Do you know the potential capacity and reading status of each individual?
6. How do you encourage each pupil "to do his best"?
7. Which do you emphasize more among your pupils, *participation* or *competition?*
8. Do you provide equal educational opportunities for your pupils—the able, the more able, and the less able?
9. Do you permit your pupils "to learn and grow in reading" at their own pace?
10. Is reading emphasized as the third phase or the first phase of your language program?
11. Do you provide opportunities for your pupils to implement reading skills creatively and functionally in the content areas?
12. Do you provide a reading program that functions in *all* daily activities of each individual's life?
13. Do you know the general, the basic, and the specific reading skills that should be introduced,

developed, and maintained with each individual at each level?

14. Are your pupils flexible readers?
15. Do you guide each individual in selecting and using all available instructional materials?

By using the above list, you will be able to observe the following: (1) those teachers who need help in teaching reading in the classroom and, (2) the kinds of help that each teacher needs.

Current popular plans offering help to teachers are (1) find a new administrative organizational plan, (2) revise the reading curriculum, (3) provide an in-service program in reading, and/or (4) hire a reading specialist. A new administrative plan may cause a "chaos" rather than "cure." A revision of the reading curriculum does not assure a "revision" of the teachers who are to implement the program. An in-service program may range from a "tell them" program to a "do them" rather than a program of professional laboratory experiences. Too, the hiring of a reading specialist may be hiring just another teacher because competent reading specialists are rarities. However, I do not mean to imply that the four plans suggested should not be encouraged to improve reading instruction.

*Reading Programs*

There are many different reading programs existing today. This, I believe, is as it should be. No one reading program will "fit" all communities, all schools, all school personnel, or all children today. Neither will one reading program "fit" everyone in the '80's. The staff of each school must develop its own reading program. The program the staff members design should depend largely upon (1) what they believe and know about the role of the school, (2) how they think pupils grow and develop, (3) how they think pupils learn, (4) what instructional materials they can provide, and (5) how they understand one another and work as a staff group.

*Instructional Materials*

To be prepared for the '80's, pupils must know how to use every available reading source. Therefore, our classrooms must be equipped with the many and varied tools used in the teaching of reading. The textbook has served many useful purposes and will continue to do so. But, to improve classroom instruction in reading, pupils must have access to more than their basal texts. Every school should have a well-stocked school library in addition to a well-stocked classroom library. A plentitude of tradebooks, textbooks, reference books, periodicals, globes, maps, charts, pictorial aids, films, filmstrips, slides, tape recorders, and other instructional aids should be found in every school library. More and more school libraries are becoming the "instructional hubs" of the school.

Mass instructional techniques such as television teaching, teaching machines, and programed texts are entering the reading scene with great rapidity. How effective they will be in differentiating and enriching reading instruction is being tested. Though many reading authorities believe that teaching machines and programed texts have excellent possibilities, television teaching remains in question because it is apparent that a teacher is preferred to a television screen for direct thinking and action among a class of children.

Sequential learning "package" is another aid for improving reading instruction. The SRA reading laboratories are examples of this type of reading aid. Although some may quarrel with the use of these self-directed, self-corrected methods, they do allow for intensive practice and for different levels of progress rates. "Packages" can be used in teams and groups which many teachers find more effective than having pupils "solo" in their work. I sincerely believe that more packages will be developed to provide intensive practice in various basic skills such as phonics, structure, skimming, rapid reading, and reading for details. Who knows the effect such "packages" may have on the improvement of reading instruction? All is in question.

To synthesize, all instructional materials offer interesting possibilities—some more than others. If we examine the quality of the products offered rather than the "machinery" that is offered, we may be able to introduce processes which are intellec-

tually higher in nature. The future of instructional materials holds great hope for the improvement of reading instruction.

*Teacher Preparation*

Teacher education is a vulnerable topic. Critics certainly do not compliment pre-service programs. Neither do they flatter the in-service education programs that are currently being offered. Two weaknesses are apparent in the pre-service training of teachers (1) an overload of verbalism that is imparted through lectures and discussions and (2) the quality of practice teaching experiences that the pre-service student receives. Dr. Mary Austin's Harvard-Carnegie report, "The Torch Lighters," stated that 84 per cent of responding institutions were gravely concerned with the quality of practice teaching experiences of their students. This is most disturbing. However, many teacher training institutions are giving great consideration to these weaknesses as they review and redesign their teacher education program. More laboratory experiences are being added under more effective conditions. At least I can report that this is what is happening in the teacher training institutions of Pennsylvania.

The effect of pre-service programs upon in-service programs will be gradual. Because of the complexities in some school situations, pre-service will never affect in-service. In-service training is complicated by factors such as, (1) the professional life of the normal teacher today is usually short, (2) the teacher shortage today has demanded that local districts recruit the local mothers and grandmothers, and (3) colleges are not adequately staffed to offer professional guidance to their nearby local districts. Certainly new methods for improving in-service education need to be explored. I feel that there is tremendous potential in both pre-service and in-service education. Which will be first to "top" its potential is questionable. However, we cannot wait until the '80's for improvement of either program. We must take steps for immediate improvement of both.

*Research*

Research is the business of everyone interested in reading improvement. No one can disagree that it is difficult to dispute programs, policies, methods, and techniques that are "founded" on well-designed and well-developed research. We cannot say that we "need" more phonics nor can we say we are "for or against" linguistics, speed reading, the New Castle reading experiment, teaching machines, television teaching, team teaching, individualized reading and other organizational plans until we have sound and sufficient research to prove it. You cannot improve reading instruction by listening to the faddists and fanatics or by accepting their script popularized by the journalists. But, if we expect teachers to interpret basic truths from superficial truths, then the institutions who prepare teachers must provide their graduates with two kinds of experience (1) teach them the necessary skills they will need to read research with some degree of proficiency and (2) train them to use the problem-solving technique known as "action research." At the same time the United States Office of Education, state departments of education, and institutions of higher learning must become more actively involved in producing well-defined and planned research. Many state departments and institutions are accepting more responsibility for research through research departments and research centers, staffed by part-time, and in some situations full-time personnel. With the many unanswered questions and the many panaceas continuously being suggested, there is a tremendous need for the researchers to "search" so that we do not sell our boys and girls short" in preparing them for the '80's.

## Living in the 1980's

Why must we meet these challenges in reading to live in the 1980's? The answer is simple. Living will be different. It will be vigorous and ambitious. Here are some of the significant assumptions which underlie my thinking:

1. There will be no mutual pact against complete annihilation via a nuclear melodrama.
2. Our concepts of travel, time, and space will be modified.
3. The spectacular developments in

medicine will aid the human body. The life expectancy of man will move to 85 and upward. A useful expectancy of 110 years is now the exciting goal of the biochemist.

4. There will be a vastly higher educated electorate to cope with the difficult economic, social, and political problems.
5. The composition of our labor force will be different. Already there are fewer opportunities for those who receive less than one or two years of college or technical training. Cybernation is in the process of modifying, if not eliminating most white collar jobs!
6. Our society is research oriented. It will remain so.
7. Technically oriented industries will give new impetus to our society. *For example*: The $25-billion space industry will replace today's $15-billion automobile industry. This will be the leading gauge of our economy.
8. The nation will have accepted education as a lifelong process.

## Man's Greatest Challenge in the 1980's—FREE TIME

In conclusion, permit me a few minutes to discuss man's greatest challenge in the 1980's—FREE TIME. Those being born today will never experience anything other than the equivalent of a three-day weekend. Already, the production of better goods in a shorter time has given man the dream of the ages, freedom to pursue a concomitant career. I am not certain that we are psychologically prepared to understand this impact of FREE TIME upon our lives. I am not certain that we will be prepared in the '80's. Many of us may terminate our earthly endeavors as "unreconstructed" rebels to the new order. We may be unhappy and melancholy because our whole career has emphasized the earning of a living. We may instinctively recoil from working hard "for free!" This certainly is not in harmony with our traditions.

What will man do with this FREE TIME in the 1980's? Will he take real advantage of this time or will he look at more late, late television shows? Will the new FREE TIME cause man to become a Frankenstein? It shouldn't if the schools have encouraged them to read widely and have laid the basis for a variety of interests. FREE TIME for service and creativity can give man an opportunity for the fulfillment of his noblest aspirations. At the same time, it can help to build a more enduring culture. FREE TIME in the 1980's can be man's greatest challenge!

5.

Vol. 8, 63

## 2. New Approaches to Reading for Young Children

39. WARREN G. CUTTS

Reading instruction is in a state of ferment, and we are probably too close to the current scene to separate trends from fads. And yet a critical analysis of reading today discloses that there are at least three major influences at work.

The first is a rising tide to introduce reading instruction earlier, to teach reading faster. This influence is probably an outgrowth of our concern for space supremacy and our alarm over Russia's technological advances.

The second, a longing for the good old days, has always been with us in one form or another. It is reactionary in nature and is at the present time being led by the Basic Educationists, who are striving to eliminate what they regard as frills in American schools.

The third, and probably the most important from my point of view, is a reexamination of reading instruction and a search for better methods of teaching reading on the part of professional educators.

### Reading for Kindergartners

One of the fastest growing trends I have observed across the nation is that of introducing reading in the kindergarten. There are many who oppose this trend, but the proponents are gathering steam and are finding ready support from parents and lay groups. A recent NEA conference in Washington resulted in a resolution *opposing any formal teaching of reading in the kindergarten.* This, of course, would not preclude such informal activities as experience charts, signs and labels, and storytelling.



More than one fourth of the cities with kindergartens in Mary Austin's field study for the Carnegie Foundation now begin formal reading instruction in the kindergarten.

The fact that some kindergarten teachers are using questionable practices in their fervor to foster reading skills may be inferred from the following remarks recorded by Dr. Austin's assistants: "We sound like broken records for a week, getting the children to learn the 'm' sound" . . . "We don't group for instruction in the kindergarten because we have no seat work to give the other groups" . . . "We have dumped experience and reading charts in most instances in favor of moving into the formal preprimers of the basal program."

Assisted by a U. S. Office of Education research grant, Denver Public Schools in 1960 began a five-year study testing the value of reading instruction in the kindergarten. This research involves more than 8,000 children divided into experimental and control groups.

Although some of the children could read primers and preprimers by the end of kindergarten in 1961, others had made little or no progress. Even so, Denver school officials were willing to state tentatively this winter, after two and a half years of study and observations, that results of the program seem to establish an advantage for children who were taught the elements of beginning reading in kindergarten.

Denver has now launched a city-wide program for five-year-olds which utilizes TV lessons and enlists the aid of parents.

Most extreme of the proponents of an early start in reading has been Omar Khayyam Moore, a Yale sociologist. He has experimented intensively with little children, including his own. Starting with a comparatively permissive, free-response situation, Moore has actually taught three-year-olds to read by means of an electric typewriter. That reading does not remain a game for his subjects is clearly evident to those who have viewed Moore's films. As long as such films are circulated among perceptive viewers, I doubt that his work will ever advance beyond an experimental stage. For the historical record, we should note that others (including myself) have been using the typewriter as an aid to reading instruction for many years.

### What Is Reading?

As we proceed from the first to the second major influence, we should examine what is meant by the term *reading.* It is apparent that proponents of a return to the good old days support the most narrow definition of this term.

The clamor is still great among laymen and some educators for a return to the 3-R's and for reinstatement of phonics as *the* method of reading instruction. Although I believe strongly in the value of phonics, I think anyone who would urge a return to phonic methods employed at the turn of the century is either misguided or misinformed.

The narrow view of Basic Educationists is clearly demonstrated in a statement by Charles C. Walcutt, author of *Tomorrow's Illiterates.* Speaking at a conference sponsored by the New York State Education Department, he said (and I paraphrase): "Frankly I don't want my students to do so much thinking when they read. In poetry, for example, it interferes with the meaning."

Can there be any real reading without a searching, inquiring, critical state of mind? To me, *thinking* is an integral *part* of reading. I want my students to read for implications and innuendoes, as well as for clearly stated facts.

### Language as Experience

In my opinion, some of the most exciting and refreshing work in reading is taking place in Southern California. In San Diego County, under the direction of R. V. Allen, the language-experience approach is offering new vitality to reading instruction. This approach is completely child-centered; it starts where the child is and with him. Since he is talking and writing about himself and the things that interest him, motivation is ready-made.

In essence, the language-experience approach as viewed by the child may be

16.

expressed in this manner: "What I can think about, I can talk about. What I can say, I can write (or someone can write for me). What I can write, I can read. I can read what I can write and what other people write for me to read."

The language-experience approach is more a way of teaching and a manner of working with children than it is a method. It requires imagination and daring on the part of teachers. It also requires smiling acceptance of whatever the child produces, an encouraging word when needed . . . and, unending patience. And, since it is an approach and not a method, there must be provisions for a wide range of reading material, for the acquisition of word attack skills, and for the development and maintenance of a large sight vocabulary. In none of the best classrooms which I visited in San Diego County were teachers relying solely upon the child's creative work for these other essentials to reading growth, but L-E approach was the core around which was built the total reading program.

Herein, I think, lies the major distinction between the L-E approach and what many of us have known for years as experience stories and around which we have built experience records for classroom use. Besides being an individual rather than a class activity, the language-experience approach is central to the total program, whereas experience stories (except in certain remedial work) have been regarded as supplementary activities.

Ultimately, the whole issue of reading instruction must reside with the teacher. A poor teacher will get poor results even with the best methods and materials. A good teacher will get good results regardless of the method or the materials. I honestly believe a good teacher could teach a child to read with nothing more than a Sears, Roebuck catalog.

For the first time since the advent of Dick and Jane, we seem to be approaching a possible breakthrough in the firm grip that basal readers have maintained on the teaching of reading. I have no quarrel with the basal readers as such, except for the excessively inane material and the unrealistic language found at the lower levels; but, I do object most strenuously to teachers and supervisors who think the teacher's guide must be followed slavishly like a recipe book.

## The Disadvantaged

The culturally disadvantaged represent an area of great concern for everyone in the field of reading today. Because so many such boys and girls are found in large cities, the great cities are playing a major role in the search for better methods and materials. Detroit in particular has been interested in producing more suitable materials, and Hunter College in New York City recently received a large research grant from the U. S. Office of Education to operate a curriculum study center. Hunter will be producing reading materials designed expressly for the culturally different. Bank Street College of Education in New York is already engaged in a somewhat similar project for the lower grades. The Bank Street books, which utilize the language of children, are scheduled for release in 1965.

Much more needs to be done in meeting the difficult problems common to the culturally disadvantaged. Educators are beginning to realize the futility of treating symptoms and of trying to overcome deep-seated maladjustments and language deficiencies at the high school level. More communities are turning to the primary grades and even the preschool years for workable solutions. They are now aware that language patterns are firmly implanted by the time a child is six years old and that culturally deprived children must have help with language development during their more formative years. Nursery schools, summer camps, and day schools may provide a partial answer.

## Some Needed Research

There are several areas in which further research might provide us with more definitive answers concerning reading instruction. These include phonics, grouping, materials, and individualized reading.

*Phonics.* Phonics has occupied such a prominent place in the public eye and has been the object of so many professional articles that it hardly seems necessary to elaborate on this topic. No qualified reading specialist would, to my knowledge, deny the importance of phonics in word

attack. The basic questions appear to be: How much phonics instruction? . . . Of what nature? . . . and, When?

Answers to these questions are going to require much more research and more carefully controlled studies than have been carried out thus far. At present there is a tendency to place more and more phonics material in the first grade, and some schools are even going so far as to use such materials in the kindergarten. The best available research concerning the placement of systematic phonics instruction indicates that for most pupils such work below the second grade should be limited to phonics readiness.

*Grouping.* Grouping practices have accounted for a large amount of research activity during the past eight years. Apparent success of the Joplin Plan has led to many master's theses and to other studies aimed at determining the merit of cross-grade grouping for reading instruction. While the Joplin approach to instruction always seems to compare favorably with other methods in such studies, there are still many who object to it for a variety of reasons. These include the fact that children are sometimes required to work with pupils most of whom are two or three years younger, plus the fact that it is impossible to integrate the reading lesson with other class activities, such as a unit in social studies.

*Materials.* The recent research of Ruth Strickland at the University of Indiana has demonstrated that the oral language of children and the language found in basal readers resemble each other only slightly. Dr. Strickland believes that further research is needed and that new materials should be tried out experimentally.

Linguistic scholars are also seeking the development of new materials for reading instruction. They feel that present readers are not based on sound linguistic principles. It is evident from current attempts to produce linguistically sound readers, however, that even the linguists do not get away from the restricted vocabulary that has been the source of so much controversy. For examples of such materials, you may want to have a look at the recently published books by Henry Lee Smith and the Bloomfield-Barnhart materials.

*Individualized Reading.* Individualized reading programs continue to occupy a great deal of attention on the part of educators. One of the most carefully designed experiments to test the usefulness of this approach has been in progress for several years in Baltimore County, Maryland. New York City schools have been the scene of considerable study concerning individualized reading. There have also been a number of books on individualized reading published during the past several years, which tend to reflect the continuing interest in this subject. Even so, very few school systems have shown any strong inclination to adopt individualized reading as a basic approach. It has been more apt to be one aspect of the total reading program and a means of broadening and enriching existing programs.

## Augmented Roman Alphabet

One of the most recent innovations to reach the American scene has been the Augmented Roman Alphabet developed in England by Sir James Pitman. Sir James now refers to this method as I.T.A., an abbreviation for Initial Teaching Alphabet. In brief, Sir James has managed, by adding 19 alphabet characters and eliminating two, to achieve a much closer phoneme-grapheme correspondence. He does not advocate that his system replace the regular alphabet and present spelling except for initial learning; hence, the term I.T.A.

Supporters of the I.T.A. claim that a child can learn to read in just half the time ordinarily required. Personally, I am not convinced by either the presently available data or the documentary films I have seen. I have been corresponding for more than a year with John Downing, who is in charge of the London experimental work, and with Sir James. They report that large numbers of children have now made the transition to regular orthography.

We shall have an opportunity to witness the effectiveness of I.T.A. in this country. Several experimental programs will begin next fall with materials furnished by Sir James. A large-scale experiment is already under way in New York City.

43.

## Through the Crystal Ball

What of the future? What can we predict in terms of past history and current trends? My own impression is that we shall see much more research directed toward a better understanding of the *actual reading process.* Much of the past research has been superficial and has dealt with matters which were already common knowledge.

I believe we shall witness new dimensions of learning in relation to classroom construction and arrangement. We should see greater emphasis on the teaching climate, especially with respect to centers of interest and opportunities for independent activity and self-instruction.

We must continue our quest for better methods of teaching reading. I hope we can encourage more carefully planned research to compare various teaching methods. Such studies ought to be conducted on a broad scale and over extended time periods. Meticulous controls should be exercised and detailed records kept, so that replications of the same experimental design might be conducted in similar and varying situations.

In the future, greater use must be made of demonstration centers and of new media in upgrading reading instruction. Teachers' colleges will find it increasingly necessary to shift from a lecture-discussion approach in methods courses to a laboratory-demonstration approach.

A teacher-exchange program between college and classroom teachers is already being used by some of the more forward-looking schools of education, so that the college professor spends every fifth or sixth year working with children. This arrangement brings theory and practice into a working relationship, compelling the methods teacher to keep abreast of latest developments in his field.

As we move forward in reading, we must prepare teachers to be ready for new departures as we retain the best in old approaches. We must strive for flexibility and versatility as we examine reports from action research and experiments. By maintaining an eclectic philosophy, we can select the techniques and approaches that work best for us in a program tailored to the needs of our pupils.

18.

6.



## B. UPPER ELEMENTARY LEVEL

### 1. Types of Activities in a Well Balanced Program

WILLIAM K. DURR
Michigan State University

THIS discussion emphasizes a "new" look at education, but I have almost despaired of separating truly new innovations from old methods dressed in new verbal clothes. For example, here is a phrase copied from a methods book. "Education has reference to the *whole man,* the body, the mind, and the heart." The phrase "whole child" is not so much in vogue anymore, but I still visit classrooms where children are treated as if their minds were completely disconnected from the rest of their beings. When I do, I often wish that the teachers would discover this "new" concept of being concerned with total growth.

The sentence quoted above? It is from a book called *The Theory and Practice of Teaching,* copyright 1885, and is given as a quote of a lecture given in 1835. One hundred and thirty years have gone by and some have still failed to discover this "new" idea.

The newness of old ideas was brought home to me forcefully when a teacher in the laboratory school of a respected teacher training institution was asked how her children learn to read. "Oh, our children don't learn to read, they read to learn," came back the glib cliché.

The effort to appear educationally sophisticated by hiding in an inappropriate catch phrase made the onlooker flinch and wish that the speaker was acquainted with the "new" idea that children need time for both. The importance of reading skill introduction and the necessity for using a carefully devised, sequential plan require us to make reading skills more than a poor cousin to content. Such skills require the best techniques of instruction, planned procedures for practice, and realistic opportunities for application. Most effective teachers provide the instruction and some practice in set times for reading instruction and combined application and additional practice in content instruction. Such teachers have wisely altered the cliché so it reads, "Our children learn to read *and* read to learn."

The acceptance of this truth, however, only takes us one step further down the path toward efficient reading instruction; there are still many places in the road where choices must be made. One of these involves classroom organization. Here the teacher is bombarded by the proponents of strictly individualized reading from one side and those who favor group instruction from the other. This argument seems to be one which has been carried to near-absurd extremes and really doesn't merit all of the time and educational journal space that has been devoted to it.

In all of the arguments pro and con on the issue of which procedure is better for providing for the individual differences of students, little concern has been paid to another individual differences issue which must be considered. This concerns the individual differences of teachers! For example, some teachers must have a well-organized room in which each student has specific assignment in order to do her job most effectively. Such a teacher is not likely to be comfortable with an individualized reading approach and, what is more, she will likely make her children uncomfortable, too. Exhorting her to completely individualize fails to consider that for her such an organization might lead to chaos.

Many teachers work most effectively in a combination organization which uses the merits of individualized instruction in two different dimensions. First, children receive reading instruction in groups while the teacher provides some additional individualization of instruction for those one or two children who always seem to to stick out at both the high and low ends of our achievement continuum. Second, all children receive opportunities for many self-selection, personalized reading opportunities to supplement their reading groups.

It is imperative, however, to remember that the most effective organizational scheme for one teacher does not neces-

19.

sarily become the most effective scheme for another teacher. You have to find the plan that is best for you and your children and you should not have feelings of professional degradation if it fails to correspond to the teacher next door. After all, you may be right—for you—just as she may be right—for her.

Of course, determining the necessity for specific instruction and then selecting the most appropriate classroom organization is just getting ready to get ready. The giant step is into the reading skills that will be taught. Here the intermediate grade teacher is likely to have a more difficult task than the teacher of earlier grades because she is generally expected to teach a span of reading achievement cutting across many grade levels. Children who need teaching or extensive reinforcement of primary skills are classed with others who handle grade level materials with ease.

There is no simple solution to the complex task involved, but each of us must do his own best job of striving to provide the instruction that our children need. When we determine which students are still functioning at a primary level we have no alternative but to give them instruction which will help guide them through that level. A complete set of basal reading teacher's guides for the primary grades can be invaluable to the intermediate teacher in this respect. Only long years of experience can build a thorough knowledge of all the skills together with the most effective techniques for developing them. Both can be found in the teacher's guides and there can be no reason for failing to use your own sound judgment in selecting what you need from these valuable aids.

As children go from the reading period into the content areas each day, the wise teacher makes sure that they do not leave their reading skills behind. Students who are still mastering the complexities of determining word pronunciation through letter-sounds plus context or even through the use of a dictionary will have many opportunities to apply these learnings in the special vocabularies of content subjects. We don't expect them to make the application automatically without direction, but we do expect them to make it.

Every skill taught in the reading period strengthens every reading experience in content; and every skill application in content helps the pupil grow just a little more in the reading skill program. Your reading program achieves balance when skill development and content reading supplement each other—when the importance of both is recognized.

## B. UPPER ELEMENTARY LEVEL

### 1. Moving Faster Toward Outstanding Instructional Programs

ARTHUR W. HEILMAN
The Pennsylvania State University

TO ACHIEVE OUTSTANDING instructional programs in the intermediate grades, we would have to correctly identify the real problems facing us or, in a slightly different context, we would have to recognize the barriers which have up to now kept us from achieving superior programs. For years we were relatively safe in repeating the slogan "we have no problems in education which couldn't be solved with adequate financial support." Now we know that money alone won't save us; for when Federal funds inundated education in 1965-66, we found it was the lack of creative ideas relating to the educational process that was the stumbling block.

The departments of instruction in the various states were literally swamped by money that was to be dispersed to the local school districts. The major response pattern of most school systems was to (1) fall back on outmoded, obsolete in-service programs, where a consultant was commissioned to come and talk at and to teachers; (2) buy gadgets and mechanical devices; and (3) stock up on books and a varied assortment of printed materials, primarily because they were available. There was a naive hope that inadequately trained teachers, many of whom had no real drive or desire to change, could be retooled in six to eight one hour in-service meetings: this hope, despite the body of data we have that both teaching and learning the reading process is a very complicated process.

Fortunately, or unfortunately, many of the failures of the crash programs in reading will never be exposed in all of their sad details. In some instances the facts were glossed over a bit and in other cases the deficiencies in the program in relation to the realities of the late 1960's were not even recognized.

The better programs may well have been the intensive summer institutes which featured systematic instruction in the reading process and extensive professional reading by the participating teachers. However, it is likely that in these programs a large per cent of the energy of the trained personnel was siphoned off into proposal writing, filling out forms, flying from one to another instructional arena, and other such activities.

#### Materials and Methodologies

In discussing how one moves toward outstanding instructional programs it might be well to clear the decks by not cluttering our thinking with excess baggage or non essentials. We may have to melt down a few of the golden calves we have worshipped in the past. For instance, do we need more research of the type we have been doing in order to arrive at outstanding instructional programs? Would reaching this goal be inhibited if we had a five-year moratorium on research which purports to measure the relative superiority of various materials and instructional approaches?

Might it be time to debate the proposition that even massive research programs which follow will never provide us with a blueprint for attaining outstanding programs? The affirmative case for this proposition would be quite strong if analysis reveals that the questions we are asking in this type of research are not closely related to the barriers which presently inhibit our progress in achieving outstanding programs.

To achieve outstanding reading programs we will have to dispose of two other golden calves or possibly just articles of faith; namely, that *new* instructional materials, or "newer approaches" to teaching reading, will be the foundation upon which outstanding instructional programs will be built. These articles of faith will die hard because they represent simple solutions to complex problems. Both educators and critics of education seem to have a predilection for simple solutions.

This statement does not imply that either group shows lethargy as we often fight vigorously over minute points of doctrine. Examples which presently engross our energies include modified alphabets, non-graded schools expected to function in a grade-level system, talking typewriters, literature in boxes, programed workbooks, projecting materials on screens, phonics emphasis beyond the call of reason, phonics emphasis within the bounds of reason, taking pictures out of beginning basals, giving awards for excellence of pictures in trade books, prescribing and proscribing practices and materials, jumping on bandwagons, and abandoning sinking ships. All of these are examples of honored educational rituals which have little impact on achieving outstanding instructional programs in reading.

## Practice Must Reflect What We Know About Learners—and—Learning

The preceding discussion has attempted to cast doubt on the efficacy of a number of practices which presently absorb much of our energies. The following proposals rest on the premise that outstanding instructional programs in reading will be achieved *only* through outstanding instruction.

There is an old axiom which cautions that in many situations "what we know may inhibit our growth," the implication being that we can become wedded to ideas which are outmoded. On the other hand, it might be said that the major problem in teaching is that our practice never catches up with or reflects what we actually know.

If we are to move rapidly toward outstanding instructional programs, we must develop practices which are totally in accord with what we know about pupil-learning and what we know about reading and its relation to all school learning. Until we arrive at this level we will have a tendency to always be looking for panaceas, for new materials, and new approaches. We will sail aimlessly in many directions because our sails will be filled with the winds of many doctrines. Let us state briefly what it is we know that is important.

*Learning to read is a developmental process,* continuous and on-going which no one, neither pupil nor teacher, ever completely masters. Every reading skill must be systematically extended as the child is confronted with more difficult reading tasks.

*Pupils as readers,* even within the same classroom, are not clustered around one point on this developmental continuum. All pupils have need for systematic instruction if they are to grow in reading efficiency.

*Differentiation of instruction* in every classroom is the chief identifying characteristic of a good instructional program. In an *outstanding* instructional program, differentiation of instruction would be even more noticeable.

*Pupil diagnosis* is the key to differentiation of instruction since logical instruction must parallel the needs which students have at the moment. In essence, differentiation of instruction must be based on reliable knowledge of each pupil who is to partake of the instructional offerings. Thus, diagnosis cannot be synonymous with guesswork or intuition. It cannot be attempting to fit this year's students to last year's lesson plans, even if last year's instructional program was highly successful. Diagnosis must be ongoing, not the mere administration of standardized tests in September, midyear, and June.

## Achieving Outstanding Programs of Instruction

This goal will be reached only when instructional practices are based on the above well-known facts which relate to learners and learning. Paying lip service to these principles, as we have done in the past, is not enough. Principles which are not translated into practice will not change teaching or learning. Outstanding instructional programs cannot just happen; they will emerge only as a result of significant changes in teacher behavior. A few needed changes will be briefly outlined.

*Adequate teacher training.* The fact that the professional training of elementary teachers, as this training relates to teaching reading, is grossly inadequate was documented in the recent study by

Austin.[1] While shocking, this data should not have come as a surprise to teacher-training institutions. Practices related to the training of teachers of reading in each particular institution were well known to that institution's staff. Unfortunately, few programs have been materially changed since publication of this Harvard-Carnegie study.

The need for knowledge in one's field is not questioned in other areas of teaching, such as history, mathematics, literature, or science. However, providing the training which would result in extensive knowledge of the reading process seems to have been waived both in pre-teaching training and in in-service programs. No one would argue for a moment that either training institutions or local school systems *want* inadequately trained teachers of reading. But both apparently would accept this outcome rather than radically change the status quo in training programs.

It is no exaggeration to state that a large per cent of elementary teachers are unfamiliar with much of the pertinent research in reading. Their training did not equip them to interpret research or transfer research findings into classroom practice. Reading teachers do not distinguish themselves as "reading teachers" insofar as the professional literature is concerned. Until this deficit in training and its commitant depressant effect on professional growth is remedied, outstanding instructional programs will continue to be limited in number.

### *In-Service—Growth Through Sharing*

In the past, elementary teachers have tended to be professional isolates, each an island unto himself. As a result, teaching tends to become stagnated and uncreative with teachers repeating the same approaches year after year. Despite the grossly inadequate in-service training of teachers, few communities have worked out meaningful in-service programs in which teachers meet together as professionals to share ideas and teaching techniques, or discuss research and professional materials.

The inability or disinclination to establish such an in-service format or climate for growth is the cause of great waste in American education. It is a truism that significant differences exist among teachers and it would be illogical to assume that teachers cannot learn from one another. Many teachers are not aware of effective techniques used by other colleagues in the same school system. This statement is true because there is little communication of a professional nature among teachers.

While it is possible that individual teachers might evolve methods of sharing, comparing, and growing, this system is not likely to occur on any large scale. Professional isolation has become a deeply ingrained characteristic of elementary teaching. There is little likelihood that teachers operating "on their own" can reduce significantly the waste of resources in their community. What is needed is a plan worked out cooperatively by teachers and the administration. Participating teachers should be volunteers rather than prisoners of an edict. A few teachers who care about professional growth constitute a much more powerful leavening agent than does an assembly of 100 per cent of the teachers, some of whom fear change to such a degree that they will consciously or unconsciously scuttle any attempt at growth through sharing. Until something is done on this front we will not move faster toward outstanding instructional programs.

*Purposeful teaching.* We make much of the fact that the child's reading must be purposeful or goal oriented, yet much of our actual reading instruction must appear to the child to be related only to *learning* to read! "Learning to read" takes place in one curricular time slot. Throughout the rest of the day children *do* arithmetic and *study* geography, science, and health. Instruction in this setting has separated the teaching of reading from the purposes for which we teach children to read. The number of outstanding instructional programs will not increase appreciably until reading instruction is an integral part of the everyday reading tasks children are asked to do.

It is easy to see how the dichotomy of "learning to read versus reading to learn" emerged. This statement reflecting sequence rather than integration accurately

[1]Mary C. Austin, et al., *The Torch Lighters: Tomorrow's Teachers of Reading.* Cambridge: Harvard University Press, 1961.

23.

reflects much school practice. Educational philosophy, on the other hand, emphasized that "one does not learn to read at one period of development and read to learn at another; but all students do both at all times." Again our philosophy is sound but in practice it is, to a large degree, ignored.

*Creative use of materials.* The past few years have witnessed a tremendous increase in reading materials dealing with a vast array of topics and available at all reading levels. In addition there has been a proliferation of basal materials which now provide schools with a variety of approaches to reading instruction. Becoming conversant with all of these materials is in itself a challenge, but more important to instructional programs is the creative and intelligent use of those materials which happen to be the vehicles of instruction.

No materials, whether they be basals, trade books, packaged programs, or subject-area textbooks, can in themselves assure against stereotyped, unimaginative use. An outstanding instructional program is not achieved simply because a certain set of materials is adopted. In fact, the same materials will be found in both good and poor programs. In many of the latter cases it will be found that teachers tend to be dominated by materials or methodological loyalties.

Outstanding instructional programs are built on the right combination of creative teaching coupled with appropriate materials and methodology. Each of these factors has considerable influence on achieving a proper climate for learning. Superior teachers will probably not see themselves as partisans of one methodological approach to the total exclusion of others. They will not debate the relative superiority of language experience, basal, individualized, or programed reading, but will use concepts, procedures, and materials from these and other instructional approaches. They know that *teaching* is the most highly weighted of all of the factors involved in outstanding instruction.

If one sought for a capsule description of American reading instruction during the past decade, the plausible one could well be "the frenzied search." The search was based on the false hope that there just might be a panacea for the ills which beset reading instruction. This false hope leads to many unproductive responses such as excessive concern with trivia, unwarranted loyalty—or hostility—to labels without concern for substance, or childlike faith in "breakthroughs" which later proved to be more of a triumph for Madison Avenue than for children in the classroom. The frenzied search was an era in which no signicant changes occurred.

Out of disillusionment may come increased maturity. We may give up the search for the cheap solution and accept the fact that instructional programs never rise above the level of the instruction found in them. It might be well to think not of moving *rapidly* toward outstanding instructional programs but rather to *start* moving.

24.

8.

Vol. 8, 63

# PART IV Cooperative Meetings

## A. National Council of Teachers of English

### 1. Project English Attacks Curriculum Problems

J. N. Hook

THIS will be an informal, largely factual summary of the major activities of Project English to date. If the title for this presentation had not been assigned, I might have chosen to call it "Two Thirds of a Penny," because that represents the total expenditures of Project English so far: about two thirds of a penny per capita. (An additional two cents has been committed but not yet spent.) I shall therefore be reporting to you on what has happened to your fraction of a cent.

Project English, sponsored by the U. S. Office of Education, is an attempt by the federal government to effect some of the needed improvements in the teaching of English on the elementary, secondary, and college levels. The needs were described in some detail in 1961 in the NCTE publication *The National Interest and the Teaching of English*. In brief, the especially urgent needs encompass a clearer focus of instruction upon language, literature, and composition; improvement in sequential planning and articulation; improvement of preparatory programs for prospective teachers; improvement of preparation of currently employed teachers; encouragement of significant research in the teaching of English; and the recruitment of additional teachers of English. Project English is not intended to develop a national curriculum, but to help in whatever ways are possible to meet such needs.

Shortly after I began my service as Coordinator during the formative stages of the Project, in early 1962, I made this statement: "Vital to Project English are cooperation among teachers on all academic levels, cooperation of college English and Education departments, cooperation of teachers and administrators, and cooperation of local, state, and federal agencies." So far the amount of such cooperation has been extensive. Whatever has so far been achieved is the result of the work of literally hundreds of persons and a score or more of organizations, including a number of representatives of the International Reading Association.

Four major activities have been the focal points of Project English. The first of these, research development, includes conferences, seminars, and certain individual projects of an information-gathering type. Here are some examples:

1. In May, 1962, we held in Pittsburgh a conference on needed research in the teaching of English. About fifty persons, representing all three levels of instruction and a number of specialties, conferred for three days. The monograph that resulted, *Needed Research in the Teaching of English* (OE-30010) is available from the Government Printing Office for 55 cents.
2. Also in May, 1962, in Washington, there was a conference on English for the culturally deprived in large cities. A monograph will be published.
3. In August, 1962, also in Washington, there was held a conference on the teaching of beginning reading, in which many IRA leaders participated.



25.

4. A conference of college English department chairmen was held at the University of Illinois in December, 1962, for the purpose of exploring ways in which college departments of English may contribute to the improvement of instruction on all levels. A monograph has been prepared by the University of Illinois.
5. At the University of Iowa a study is under way of the present state of knowledge about composition teaching.
6. A special team was employed to conduct an evaluation of the twenty institutes for secondary English teachers, sponsored by the Commission on English of the College Entrance Examination Board. If the proposals for federal support of institutes for English teachers are approved, the report of this team will be invaluable.
7. As a final example under this heading, at Brown University a "linguistic corpus," consisting of about a million words of modern American prose, will be placed on computer tape for use in detailed analysis of modern English sentences, a type of analysis which heretofore has had to be accomplished laboriously by individual researchers.

The second major undertaking of Project English has been a number of research studies, conducted cooperatively with funds from both the Office of Education and specific colleges, universities, or state departments of education. Thirty-seven such studies are in progress. Here are a dozen examples:

In *North Carolina,* a study of the relationship between ability in written composition and awareness of syntactic relationships

In *Delaware,* a study of ways of developing unfamiliar concepts in secondary students

In *Pennsylvania,* an analysis of characteristics of compositions written by children in intermediate grades

In *New York,* a comparison of the practical results of instruction in traditional grammar and in structural linguistics

In *Illinois,* a study of instruction of high school students in reading for different purposes

In *Iowa,* an evaluation of five methods of teaching spelling in second and third grades

In *Michigan,* a comparison of the reading, writing, and spelling achievement of groups of English, Scottish, and American children

In *Colorado,* a development of a high school course of study in grammar and composition based on a correlation of the traditional and structural methods of linguistic analysis

In *Florida,* a sudy of the effect of practice and evaluation on improvement of written composition

In *Illinois,* a study of English programs of high schools that consistently educate outstanding students in English

In *Florida,* a study of differences in grammatical structures used by students at three different grade levels

Most expensive and extensive of the four major activities of Project English are its curriculum study centers. Each of these will last about five years and will be financed by the federal government to the extent of about a quarter of a million dollars, in addition to a share of the cost borne by the local institution. The purpose of a curriculum study center is to develop and test a curriculum for specified grade levels and with a particular emphasis. It is anticipated that when reports from the centers appear, it will be possible for interested schools to examine whichever curriculums appear successful and choose from their component parts those elements which are most applicable to other situations. Thus we shall have a number of curriculums which stress sequential development of tested materials.

Ten of these centers are now in operation, with decision on another still pending and with some additional proposals expected. The ten, listed alphabetically by institution, are as follows:

1. Carnegie Institute of Technology, English for the able college-bound in grades 10, 11, 12.

2. Florida State University, a comparison of three patterns for the junior high school English curriculum
3. University of Georgia, a K-6 composition program, using materials based on relationship between concept attainment and language proficiency
4. Hunter College, English for culturally deprived children in junior high schools
5. University of Minnesota, linguistics in the high school program
6. University of Nebraska, a K-13 program with emphasis on composition
7. Northwestern University, a 7-14 program with emphasis on composition
8. University of Oregon, a comprehensive program for 7-12
9. Teachers College, Columbia, teaching English as a second language
10. Wisconsin State Department of Education, a statewide English program for K-12

Although the contracts for these centers are normally with a college or university, it is not to be supposed that professors will make decisions in their ivory towers. In each center, professors and classroom teachers of various grade levels will sit down together, work out course outlines cooperatively in accordance with predetermined principles for the center, arrange to have these materials tested in a number of classroom situations, make necessary revisions, and try out the materials and procedures again.

The final aspect of the work of Project English is the newest—demonstration centers. The theory here is that some very fine things are being done in the nation's English classrooms, but that often not even the teacher across the corridor knows of their existence, let alone the teacher across the state or the nation. A demonstration center is expected to exhibit a working program in such a way that large numbers of interested teachers may find out about it.

So far, only four demonstration centers are under way. Euclid Junior High School (Ohio), in collaboration with Western Reserve University, is conducting a demonstration of a forward-looking junior high program. Schools working in conjunction with Syracuse University are displaying a reading program for secondary schools. At the University of California, films are being prepared to demonstrate effective teaching of literature in the tenth grade. At New York University and cooperating schools, there is a demonstration of current high school programs in linguistics.

Persons wishing to keep informed about activities of Project English may have their names put on the mailing list for the *Newsletter* by sending a request to Coordinator, Project English, U. S. Office of Education, Washington 25, D. C. Those who wish information about submitting proposals may secure it from the same source.

In conclusion, let me re-emphasize that Project English is making no attempt to create a national curriculum. It is intended to test various hypotheses methodically and to let results be known so that interested schools may apply to their own needs whatever they find that they consider helpful. That is a fairly large return for two thirds of a penny.

27.

9.

Vol.7, 62

# 9. Controversial Issues in the Teaching of Reading

WILLIAM J. IVERSON

I should like first to treat the criticism directed at content. It has long seemed to me that a clarification of this problem is overdue. In the first place, we ought not to assume that reading instruction should be conducted primarily through literary material. Most of the learnings of the school are not taught through literature but through exposition. The social sciences are not stories, neither are the natural sciences, and certainly mathematics is not fiction. The literary mode of communication is not a dichotomy apart from the expository, but it is at least a considerable distance. In literary material the desideratum in response is imaginative elaboration. The reader should add much which is uniquely his own creation while remaining true to the spirit of the writing. Any reader who reads a story, a play, above all a poem, as if it were purely exposition surely robs literature of its primary impact. For in expository material ideas must be captured and patterned exactly, not brushed and diffused fancifully. The rubrics of logic are basic to exposition. Literature is not primarily an exercise in logic.

So I am suggesting that we shall come closer to a resolution of the issues about quality of content if we place the literary in balance with the expository. Then we ought to decide more clearly and more reliably than we have what are the qualities of the values, ideas, emotions, or processes, we wish conveyed at successive levels of reading. Obviously judgments in these matters have been made over the centuries. But I plead both for greater clarity and firmer verification.

Let me refer to literature. It is not enough to choose literary material by selecting only standard authors. In the first place there is disagreement about who is "standard" for what level. In the second place, to deny recognition to authors whose reputations, despite the merit of their writing, are yet to be made is to kill future literary effort. In the third place, judgment that this author communicates these values, ideas, emotions, which we deem desirable at a given level of reading maturity should not be mistaken for verification that the communications ever arrived. Nor should analyses by readability formulas be considered anything beyond gross, first screenings. Genuine verifications will have to come by trying materials with children to determine whether in fact criterion levels of success in receiving communications were achieved.

And now let me refer briefly to exposition. Exposition is the basic mode of communication for most of the schools' curricula. If expository materials were used in balance with the literary for teaching reading, what might we hope to gain? We might hope to gain facility with the basic problems of logic. The same logical processes pertain to many fields. Deduction, induction, analogy, to name just three patterns, are employed not only in the natural sciences, but in the social sciences and mathematics as well. If the reader learns to recognize with increasing sophistication a good piece of logic through his reading instruction, he can put this patterning to work in initial access and in cumulative development of the qualitatively different ideas particular to the several disciplines.

Please note that I recognize some exposition is now included in reading instruction. But I am suggesting a criterion for selection which has not been constantly used. The pieces of exposition should be programmed because they represent a pattern in logic and because they permit increasing sophistication with that pattern. Obviously the same needs for clarity and verification in programming suggested for the literary apply to the expository.

Now I should like to turn to the issue of extent of vocabulary. I believe that vocabulary can only be discussed fruitfully when the prior considerations of appropriate literary and expository content have been satisfied. Once it is clear which

28.

values, ideas, emotions, or logical processes are appropriate for a given level of reading development, we can search for the selection with a tolerable vocabulary burden. I do not believe, even in the very beginning reading instruction, that the process ought to be reversed. I do not think it wise to select vocabulary and then try to contrive a communication. It may well be that some further preparatory work in developing vocabulary may have to be undertaken before a desired reading can be undertaken. But I see no reason why we should dismiss this kind of preparation as undesirable on some *a priori* basis. We ought to try to learn by experimentation what in fact does ensue. Certainly a kind of interplay between content and vocabulary will immediately enter. A selection judged to have appropriate content might turn out to have an excessive vocabulary load. But the excessiveness ought not to be assumed without empirical verification. Only in this way, I think, will we ever come closer to agreement in the debate about vocabulary control.

Now I come to the target in reading instruction toward which the most violent assaults are directed, that is, of course, methods of teaching.

Let me begin with beginning reading instruction. In the 1942 decade the cries seemed to register in somewhat fewer decibels than the sounds I hear currently. There were some grumblings about reading readiness and some noises about reading in the kindergarten, but they were hardly deafening. They may not even be deafening now but they are at least considerably amplified.

I should like to comment upon these related, but somewhat distinctive, criticisms. I suppose no critic, earlier or now, really denies the necessity for respecting the difference in potentiality for beginning to read. It is the components of the necessity upon which attack centers. And it is what is done in meeting any accepted necessity which is at issue. We shall never resolve either of these debates without better means of assessment than we now have. What are the roles played in a given child of age, sex, intellectual factors, physical capacities, experience, language, emotional and social resources? I shall be bold enough to say that while we know something of the roles played in a general way, we do not know with sufficient specificity what the significance of the interplay among these factors for a given child may be. And, of course, if my statement is defensible, we are hard pressed to defend in detail what we do for a given child. I am not suggesting for a moment that we abandon the concept of reading readiness nor programs designed to promote this readiness. I am saying that the concept needs better definition and the programs need verified relevance.

That brings me to the related matter of teaching reading in the kindergarten. Entrance to the schools is determined by age. And chronology is at best a gross criterion. If reading readiness were better defined and if readiness programs had verified relevance, we should not have ended the debate. Beyond the query "Could this child begin to read in kindergarten?" remains the larger question: Should this child begin to read at this point in his school career? Is ability to read on the face of it the *summum bonum* for any child in the kindergarten? Or do value considerations enter? And who is to choose if there are value considerations? I do not have the temerity to answer the questions I have posed. I leave them to braver souls.

Once instruction in reading has begun, we are ready to enjoy the quarrel about who gets taught where. Shall we have an entirely individualized reading program? Or shall we have entirely grouped instruction? Or shall we have some combination of the two? The debate on this matter has been largely confined to the profession. I think the lay critics are saving their participation for a rainy day. But while up to now the argument has been almost entirely among the brethren, it has been no less heated because it has been within this normally sedate province. I have tried to view the arguments and the evidence with the impartial eye I wish I had. It seems relatively safe to say at this time neither side's arguments or evidence are wholly persuasive.

The argument, of course, does not cease when we have discussed who gets taught where. It ranges immediately into who gets taught what. For example, what kinds of comprehension shall be fostered? The new

work in programming learning may have much help to offer in time. We badly need to know more clearly what are first, second, and succeeding levels of understanding appropriate literary materials. We need equally desperately to know more precisely what are increasing levels of appreciation. And, of course, we need to know whether in fact it would be wise to seek a new balance between literary and expository materials. And, if it did appear to be wise, we should have to learn how to program for this kind of comprehension.

Then, having decided these matters, we could enter that lovely arena of acrimony which has to do with how fast shall these understandings be managed and with what factors influence this speed. I suspect a considerable amount of refinement of the discussion will have to be achieved before we can expect any resolution of the issues at all. Can we speak profitably of rate of comprehension in general? Or must we speak of rates of comprehension in literature, in the social sciences, in the natural sciences, in mathematics? And, even within a discipline, can we avoid specifying the breadth and the depth of the comprehension desired? Would we have to specify rate of coping with trends, analyses, themes, generalizations—hence ideas broad in scope? Would we have to specify rate of dealing with names, places, events—hence, ideas narrow in scope? Would we have to speak of rate for good, clean unsullied repetition—hence, understanding superficial in depth? Would we have to label rate of judgment, evaluation, appraisal—hence comprehension great in depth? I am sure there are other refinements of the discussion which might be undertaken, but surely something of this order is needed if we are to talk about "speed reading" sensibly at all.

Now that we have comprehension in good order and at the speed of light, we can enter into discussing the raw material of thought: the word. The bloodiest of all the battles are fought about how to teach word recognition. The fight is lustiest at the beginning to read stage. I do not expect to have strength to go beyond that level.

Of the five clues to word recognition, besides the dictionary, the one attracting the least combat appears to be the pictorial clue. There are some complaints about the quality and the over-abundance of illustration in materials for reading instruction. But not much argument ranges about the picture as an ancillary clue to the word in the text. It seems to be accepted that the pictorial clue is an aid and not a basic access to the word itself.

When we move to the text, however, we can find avid disagreement with no trouble at all. Is a word a creature of textual circumstance? How useful a clue is context? And how should use of context in the recognition of words be taught? Many critics attack the use of context as inviting "guessing." Furthermore, it is frequently alleged these are random stabs which tend to cut out more systematic clues. I do think myself that in teaching context clues further emphasis is needed on thinking through the text so that meanings are chosen systematically and logically. And I do think we might well have experimentation to see whether use of context does tend to cut out other clues rather than tend to encourage using clues in concert playing one against the other to get the proper harmony of meaning. The work in linguistics also has much more guidance to offer on this point than we seem to have used.

Once the resources of context have been exhausted, we are upon the word itself. First, there is the word as a visual configuration. This clue to word recognition is sometimes called "look-and-say," and I need not tell you the term can provoke bloodshed at forty paces. As we all know, the majority of the reading instruction material employs some sight words, that is, words taught as visual configurations. These words are used as basic elements for simple statements and as vehicles for teaching the remaining two clues: structure and phonics. The most recurrent charge alleges that this temporary expedient is permanently damaging. As in the case of the use of context, this kind of clue is said to blot out the use of more systematic clues. The young reader, it is charged, becomes habituated in leaping into recognition on the basis of configuration inadequately scrutinized. If he were trained to employ always in first priority structure and phonics, it is declared, he would not make such mistakes of hasty

and inaccurate recognition. These charges and countercharges will go on forever so long as they are conducted on a rhetorical plane. They may not end even if we try to transfer the disagreement to researchable hypotheses. But it is worth trying.

This brings us to structure. I did not sense in 1952 and I do not sense now much argument about the use of parts of words, prefixes, roots, suffixes, inflections, syllables, as clues to word recognition. Nevertheless, I do not advocate resting on this point. The kinds of morphemic analyses made by the linguistic scholars have not been employed systematically in reading instruction. We ought to begin to try.

Finally, I come to phonics, the choicest source of mayhem of them all. As you all know, it is an ancient agent of acrimony. It has been with us as an invitation to battle as long as we have had instruction in reading. I remind you of this so that you will not expect a few well-chosen words to bring peace to the long war.

The arena of argument about phonics does seem to me to have shifted somewhat in the last ten years as contrasted with the earlier period of 1942-1952. Earlier many of the critics charged that phonics were not taught at all. Now the attack has shifted. Phonics, it is now charged, are taught but taught the wrong way. The essential sources of disagreement are these:

1. Should the phonic skill be taught through phonemically regular words without much attention to content and syntactical patterning? Please note, first, that this approach uses whole words and is analytic, not synthetic. But the words are not sight words chosen primarily on a content basis but selected for phonemic regularity. The present typical sight words used in the first books are not entirely phonemically regular. Please note, second, that the primary persuasion to attempt the analysis must derive out of making the sounds of a recognizable word and out of whatever content reinforcement the word alone arouses. Some who have thought about this problem long and hard believe that this persuasion may be enough. At any rate the idea should not be dismissed without empirical validation or invalidation. Bloomfield,[1] the eminent linguist who originally proposed this system of initial instruction through phonemically regular words, apparently convinced himself the reward of making the sound of a recognizable word and whatever content that word aroused would not be enough. So he early made sentences for practice reading out of his phonemic regulars. The trouble is that his phonemic regulars do not suggest very rich content even in the most ingenious syntactical arrangements. In fact, to use a phrase authored by one of my students, the content "totters toward torpidity."

At any rate the issue remains would it be better to teach the phonic skills through phonemically regular words either relying on the motivation of word solving alone or tolerating somewhat contrived constructs with the word solutions?

2. Should the phonic skills be taught entirely synthetically? That is, should children never be given sight words, or even complete words as suggested by Bloomfield, but put together sound elements to make words from scratch?

3. Should the phonic skills be taught through sight words but with a much greater density in number of sound elements employed in beginning instruction?

4. Whichever of these three proposals is accepted, what sequence in teaching phonemes should be followed?

For example, we now start with beginning consonants. But Bloomfield begins with vowels immediately. What is the optimum sequence?

At the present state of knowledge about phonics, I have my own preferences. But I would welcome carefully devised experimentation which might clarify, if not entirely resolve, the issues which I have stated and others which could be posed.

Now I am at the end of my discussion. Any of the knowledges we gain about the act of reading will also present problems in evaluation. How will we know when changes are introduced what effects they are having? And if we change reading instruction as we resolve some of the issues discussed, we shall be in even more serious need of better means of appraisal.

[1]Leonard Bloomfield and Clarence Barnhart. *Let's Read: A Linguistic Approach.* Detroit: Wayne State University Press, 1960.

10.



## 2. Organizing to Care for Individual Differences

WALLACE Z. RAMSEY
University of Kentucky

INDIVIDUAL DIFFERENCES among and within children create persistent and enduring problems in education. The normal curve of distribution illustrates the extent of inter-individual differences among a group in almost any measurable ability. The curve seems to be an artifact of nature—appearing in economics, sociology, physics, and education as a description of recurring variations of phenomena.

The problem of *intra-individual* differences gets far less notice from educators but is as persistent—and probably as important—as differences *among* human beings. Anastasi presents the view that the differences in various traits within a single individual are 75-80 per cent as great as the differences in a single trait among members of a group *(1)*.

Examination of achievement test results reveals how true this is. Among second graders in September a variation of three grade levels in reading ability is normal. As grade level increases the variation within the class increases. A table of Stanford Achievement Test Scores for a fifth grade in September reveals a variation of five grade levels in word meaning and eight grade levels in paragraph comprehension. The variations in arithmetic, social studies, science, and language are almost as great.

An inspection of the scores reveals great differences in abilities *within* children. While the average variation is only slightly over three grade levels, intra-individual differences are found to be as great as seven grade levels in one case, six grade levels in two cases, and four to five grade levels in eleven cases—out of a class of thirty children. Bear in mind that the Stanford does not measure physical, social, or emotional differences—all of which directly affect learning.

This persistent and enduring problem has led to the creation and use of many types of administrative organization. Each succeeding educational generation rediscovers homogeneous grouping, inter-class and intergrade grouping, subject departmentalization, team learning, and individualized instruction. The names vary, but the XYZ Plan, the Dalton Plan, the Joplin Plan, the Contract Plan, and all the rest are cut from common cloth.

Each plan has sought to make it possible for teachers to have a group of children of similar reading ability at a given period. Each plan, in its own way, accomplishes this. Teachers clamor for any such change that will narrow the range of achievement; and when the change is made openly laud it and quickly announce that the best of all possible educational worlds now exists.

Research studies, however, seldom find that any single plan consistently produces better results than more conventional methods of organization. While Cecil Floyd *(2)* may "prove" that the Joplin Plan is superior, William Powell *(6)* and Pauline Williams *(7)* "prove" as emphatically that it is not.

Wherein lies the answer to the enigma? It probably lies in at least three directions: the Hawthorne Effect, the teacher factor, and the unadapted total school situation.

"New" plans often get superior results because they excite teachers and children to greater and more productive efforts. Once the excitability effect of newness wears off the results under the "new" plan are no better than the old. There are countless examples of this in human institutions and endeavors outside education.

Nevertheless, we should not overlook the potential value of the deliberate use of change to produce a Hawthorne Effect. Sometimes it may be desirable to replace a basically productive method with one that is intrinsically slightly less productive, for the sake of jolting complacent teachers and bored children into a state of heightened interest and effort.

Teachers themselves often keep a new method of organization from proving its intrinsic superiority over the long run. They fail to fully capitalize on the advantages of a new situation. They tend to lapse into old ways of doing things after the initial stage of "newness" disappears. The writer once visited a junior high school where all seven ability groups in the ninth grade were using the same history text. This circumstance could hardly

32.

be construed as taking full advantage of the grouping plan.

It is axiomatic that what the teacher does with children makes a substantial difference in learning. While new organizational patterns make possible new and more profitable courses of action, they do not necessarily bring about basic changes in teacher behavior. Teachers often continue to behave in the old patterns—for a time with renewed vigor, it is true—when a new organizational pattern is effected.

It may be that in our present stage of knowledge the state of affairs is unavoidable. Educators are almost unanimous in agreeing that the ineffective teacher is different in important ways from the effective one. Yet there is an almost complete absence of research-derived knowledge concerning *which* personal and professional characteristics distinguish the productive from the unproductive teacher. Until we gain such knowledge are we likely to be able to cause teachers to effectively adapt their behavior to new organizational patterns?

The writer contends that intrinsically valuable organizational patterns often fail to get results because the total school situation—including teachers—is not adapted to them. Buildings, administrative policies, teacher knowledge and attitudes, and available materials, are suited to old patterns. Frequently a new organizational pattern utilizes the existing situation with the few changes it is possible to make in it without major surgery.

One interesting new development, the non-graded school, seems to have a good chance of meeting its promised potential, when certain conditions obtain. The Garden Springs School in Lexington, Kentucky, in its first year of operation was an example of a promising situation.

The school plant was specifically designed for non-gradedness. Classrooms are arranged in complexes, with each primary grade classroom twice the size of a normal room and arranged in a complex with another room of the same size. Each intermediate grade classroom is four times the size of a normal room. Bookcases on rollers provide readily movable partitions to cordon off classroom-size working units for home-room groups of 30-35 children. Such partitions are moved to enlarge work space when two to four classroom units are combined for some activities. Carpeted floors reduce noise levels that might become unbearably high in a classroom of sixty to one hundred fifty children.

Children are grouped and regrouped for various types of learning. It then becomes possible for children in a primary grade group of thirty to work on six or seven different reading levels, depending on their needs, and still stay within their "room" and within sight of their "home-room" teachers. Intermediate grade children may have a "choice" of as many as twelve different reading levels on which to work.

In such a situation the fifth grade class containing eight different grade levels in reading comprehension can be successfully taught. An individual child whose achievement in the various subjects ranges over six or seven grade levels can work in each subject with a group of children on his achievement level.

Teachers who are able to work efficiently and harmoniously in such an environment do not emerge full blown from our present teacher education programs, nor do the principals of such schools. In the case of the Garden Springs School a principal of unusual flexibility and perceptiveness was found. Although he was a graduate of a somewhat traditional program, he had absorbed many imaginative ideas and had an unusual ability to introspectively expand them, to plan a school plant wherein they could be implemented, and to recruit a staff that would mold the ideas into instructional practices.

In staff selection the sought-after abilities were imagination, flexibility, eagerness to try new ideas, good academic records, and energy. Many of the instructional procedures were devised as the program evolved.

The limitations of materials were not easily (and actually not completely) overcome by teacher ingenuity. Basal readers formed the core of instruction. Grade level markings (and the grade level concept among the children—and possibly, quite subconsciously among teachers) were deterrents. Nevertheless, critical observers felt that in the situation the needs of various children were well met in the reading program.

The library was a bulwark of strength in the program. It was labeled "The Materials Center" and contained filmstrips and many other types of non-book material for child use. Children were encouraged to use it at all hours of the day. Sprawling on the floor on cushions to read books was encouraged and practiced.

Achievement test results at the end of the year showed, as was expected, better-than-average achievement. The factor or factors responsible for the success cannot be easily determined. Were they due to non-gradedness, or Hawthorne Effect, or superior teacher ability, or what?

Studies by Anderson and Goodlad *(2)*, Hillson *(5)*, and Halliwell *(4)* reveal the superiority of reading achievement of non-graded pupils over pupils in schools having more conventional organization. Other studies show no difference. In the judgment of the writer, carefully conducted research on the effects of the non-graded school remains to be done.

Man is, if nothing else, a creature of change. Change is the watchword of our times. Innovation in education is a necessity, not a luxury. The administrator must, if he is truly a leader, innovate and seek new ways of thinking, organizing, and doing. In this direction lies our hope of progress.

## REFERENCES


1. Anastasi, Anne. *Differential Psychology.* New York: The Macmillan Co., 1958, 320.
2. Anderson, Robert H. and Goodlad, John I. "Self-appraisal in Nongraded Schools; A Survey of Findings and Perceptions." *The Elementary School Journal,* 62 (October 1962), 33-40.
3. Floyd, Cecil. "Meeting Children's Reading Needs in the Middle Grades," *The Elementary School Journal,* 55 (October 1954).
4. Halliwell, Joseph W. "A Comparison of Pupil Achievement in Graded and Nongraded Primary Classrooms," *Change and Innovation in Elementary School Organization,* Maurie Hillson (Ed.). New York: Holt, Rinehart and Winston, 1965.
5. Hillson, Maurie. "A Controlled Experiment Evaluating the Effects of a Nongraded Organization on Pupil Achievement," *Change and Innovation in Elementary School Organization,* Maurie Hillson (Ed.). New York: Holt, Rinehart and Winston, 1965.
6. Powell, William. "The Joplin Plan: An Evaluation," *The Elementary School Journal,* 64 (April 1964), 387-92.
7. Williams, Pauline L. "Some Group Reading Results," *Chicago School Journal,* 31, 1949, 90-94.


34.

11.

# PART IV

## Evaluation of Reading Instruction in American Schools

### 1. An Evaluation of Reading in American Schools

NILA BANTON SMITH

AS YOU have attended the various meetings in this convention you have really witnessed a pageant in American reading instruction, a pageant that has portrayed in a colorful but objective manner theory, practice, and research in our instructional program. It is my assignment to summarize, tie together and evaluate these portrayals.

It is difficult to know where to begin in evaluating a subject that has so many facets and ramifications as does reading instruction, but after some thought I decided that it might be logical to start with the two-year-old and work upward. So I shall first discuss the reading of young children, then on to trends in elementary, secondary, college and adult reading, respectively. Next, I shall talk about aspects of reading that cut across all levels: clinical activities, literature and automated teaching; and finally an attempt will be made to evaluate the criticisms that are being leveled against American reading instruction at the present time.

#### Reading by Pre-School Children

As you well know the reading of young children is one of the most popular topics of discussion at the moment. Even the author of the Pulitzer Prize winning novel *To Kill A Mocking Bird,* amusingly portrays the experiences of a pre-school reader. You will recall that Jem said of his four-and-a-half-year-old sister, ". . . Scout there's been readin' since she was born, and she ain't even been to school yet." Then upon entrance in first grade, Scout, whose real name was Jean Louise, was asked to read something that Miss Caroline wrote on the chalkboard and she read it so well that Miss Caroline was visibly vexed. Miss Caroline then had her read most of the first reader and stock market quotations in the *Mobile Register.* All of this time Miss Caroline's irritation was building up and she finally exploded, "Tell your father to stop teaching you. It will interfere with your learning to read in school." Jean Louise said that her father didn't teach her and then she began soliloquizing to herself on how she did learn to read and finally decided that it just came like learning to fasten the flap on the back of her union suit without looking around. Her troubles continued, however, as her school days went by. Miss Caroline became increasingly annoyed and frequently snapped out such sharp reprimands as "Stop it. You're not supposed to know that until next grade!"

This is an amusing account, but we really don't have to refer to a novel to learn about children reading before they go to school, nowadays. We're hearing about these pre-school readers on all sides at the moment and it is good that we had some discussion of this topic in our program. Dr. Austin, Dr. Durkin, and Dr. Morrison discussed this topic and delineated many of the problems with which we are confronted.

As I view the present situation, personally, it appears to me that our concerns fall within two major categories of young children: (1) those who seek reading and learn to read informally, and (2) those who are given systematic instruction at the initiative of an adult who wishes to hasten them along their educational way. Each of these categories requires separate evaluation.

I should like to give an example of the first category and use this example as a basis for evaluation. This example is concerned with Cathy, the young daughter of a friend of mine. When Cathy was three, I, together with other guests, frequently



35.

spent an evening in her home. As the guests arrived Cathy would gather up a half dozen books, seat herself under a lamp and sit there oblivious to conversation of the guests, literally devouring her books for long periods of time. I often wondered what she was thinking about as she was either appreciating, reliving minutes examining one picture. Evidently she was either appreciating, reliving vicariously the experience of the characters, or else she was interpreting picture detail.

When turning four, Cathy began asking what certain words were, and she would now sit by herself and read orally from books, largely from memory but recognizing a word here and there. When she was about four and a half she was in a ten-cent store with her mother one day. While the mother was busy shopping, Cathy amused herself at a counter covered with books. Suddenly she discovered a little booklet with pictures in it and a word under each picture. She ran to her mother begging her to buy this book. With the use of the book, Cathy taught herself to read all of the words under the pictures. When she entered the kindergarten at five last fall, she was reading fluently.

Wondering whether Cathy's skill was being recognized by the kindergarten teacher, I asked, "Does your teacher let you read at school?" "Oh, yes," replied Cathy. "I read every day to her and sometimes to the other children." Again curious to know if the kindergarten teacher was actually teaching reading to all of her pupils, I asked, "Does your teacher have all of the children read each day?" "Oh, no," answered Cathy. "Just me and another girl. But I read better'n she does." Cathy was not only progressing in reading but she had evolved an evaluative process which she used in appraising reading quality and applied it quite immodestly.

The points that I want to make with the use of this illustration are: (1) Cathy learned to read as a result of her own questions and requests which were answered and granted by a sympathetic mother. She didn't read because some adult decided to teach her to read and began flashing word cards for her to memorize or telling her that *b* said "buh" and *c* said "cuh." She practically taught herself to read whole words which were meaningful to her because they were pictured. (2) Cathy was not denied reading experience in kindergarten and told that she would have to wait until first grade. The kindergarten teacher nurtured Cathy's reading interest and ability, but she did not formally teach reading either to Cathy or to other kindergarten children who had not yet reached beginning reading maturity. It is hoped, however, that she provided many rich informal contacts with reading for all of her pupils in such ways as those mentioned by Dr. Durkin in her paper on "Reading Instruction and the Five-Year-Old Child."

We have evidence that most of these pre-school children who learn to read at home learn by informal methods as illustrated in the example of Cathy. Terman[1] found that over one per cent of his subjects learned to read before they were three years old, and that two and a half per cent read before they were five. Most of them received only incidental assistance, and some surprised their parents by suddenly reading to them when their parents were not aware that they could read. Durkin,[2] in her study of forty-nine children who read before school, found that at least one person in the family took the time and had the patience to answer the children's questions about words, and that in most cases the questions were constant.

So much for children who learn to read informally at home. In contrast to this situation we hear of current experiments in which a person is teaching youg children to read through an adult planned, systematic method. Examples of such experiments are: the Yale experiment in which Dr. Moore is teaching children from two to five to read with the use of an electric typewriter; the Denver, Colorado experiment in which parents are directed by TV in teaching their pre-school children with the use of a phonics book; the experiment of the Whitby School in Connecticut which has been using the Montessori method; and the experiment of the Social Psychology Laboratory at the University of Chicago in which it is hoped

[1]Lewis M. Terman, *Genetic Studies of Genius*, Stanford, California. Stanford University Press, Vol. I, 1925, pp. 271-272; Vol. II, 1926, pp. 247-255.
[2]Dolores Durkin, "Children Who Read Before Grade One," *The Reading Teacher*, 14 (January, 1961), pp. 163-166.

36.

to teach four-year-old underprivileged children to read.

Such experiments await further longitudinal measurement before a valid evaluation can be made. It has been proved many times that an adult *can* teach a young child to read. The important question that many people are asking is: "Is this desirable?" Specialists in early childhood believe that these children are not sufficiently mature physically and emotionally to withstand systematic teaching. They inquire whether they may develop antagonistic attitudes toward reading and a distaste for reading. Reading specialists wonder if these children will be at any advantage over other children in later primary grades. Too, they inquire if these children become fluent readers far beyond the usual grade-age achievement, will they be able to understand the concepts in the more advanced reading which they can do.

In summary it might be said that young children who, themselves, show an interest in learning to read and request help in reading at an early age certainly should not be deprived of the assistance which they seek. Society needs the contributions of the gifted too much for these children to sit around and wait until the average or slow children are ready to read. More than this, probably most kindergarten teachers should be exposing their pupils to many more *informal* reading experiences than they are now doing.

On the other hand, the practice of having an adult engage in some systematized form of instruction with young children irrespective of their beginning reading maturity, is a practice which is questioned pretty generally by reading specialists and by those especially interested in the field of childhood education. Until the benefits and dangers are better known most of these people are not willing to place themselves among the backers of this movement. In the meantime, let's keep an open mind and wait and see.

## Reading Trends in the Elementary Grades

The organization of children in a class for teaching reading is undergoing challenge and experiment.

At this convention we have heard about the individualized plan, in-class ability grouping and the cross-grade or Joplin grouping plan. In addition there is the ungraded plan and the multi-graded system. All of these plans are worthy of measured investigation and I hope that we shall continue to carry on experimentation with them.

To refer to one study: Mr. Ramsey reported in his talk here at the Convention that he found no significant difference in results obtained under three different forms of class organization and concluded that the influence of the teacher was the most important factor. "Given a good teacher, other factors in teaching reading tend to pale to insignificance," said he. And this makes a lot of sense.

Personally, I believe that the grade system and the grading system will disappear eventually, but why do we have to replace them with any other one system all neatly wrapped up in a package and tied with a silken cord? Does it have to be *all* black or *all* white? In the transition period while we are working our way out of grades, can't we strive for greatly increased flexibility rather than trying to pour classroom organization into any one labeled mold? Can't we somehow have a balance of working individually and in groups—lots of different groups—as skills, attitudes and interests are best accommodated without blueprinting any one particular scheme? This may be too idealistic, but it's the thought I want to leave with you in evaluating classroom organization.

*Methods.* Passing on to methods in the grades, three departures in method of teaching reading were discussed. Individualized instruction was the topic of Dr. Groff's talk and it was mentioned in several other meetings. This method seems to be gaining in acceptance throughout the country. In New York City, for example, a recent survey revealed that sixty-eight per cent of the 588 elementary schools were using the individualized plan of teaching reading. The Elementary Division of the Public Schools[3] reported their conclusion resulting from a survey in this way:

[3] *Status of Individualized Reading*, October 1, 1961. Division of Elementary Schools, Circular E. S. 27, Board of Education, New York.

37.

"Whether the use of the approach will continue to increase in New York City schools depends on the reading achievement of the children using the approach, a factor controlled to a large degree by the quality of the supervision given those classes in which the individualized reading approach is being used."

Probably this statement is representative of the thinking of other school officials who are awaiting the outcome of using the method over a period of time. The results of controlled studies are controversial. Practically all of the teachers who use the individualized plan, however, are enthusiastic about it and they claim that pupils read more books than formerly. The method is promising but it is too new for us to have accumulated a large body of conclusive evidence concerning it. Till then, evaluation is incomplete.

The Language-Experience Approach as presented by Dr. Allen and demonstrated by Mr. Halcomb deserves special recognition. For many years we have talked about the desirability of teaching reading as a part of an integrated language arts program. This is the approach with which some of the teachers in San Diego County have been experimenting. In this approach no distinction is made between the reading program and the program for developing the other language skills. Each child begins by reading his own stories dictated to the teacher. As soon as he makes "a commitment," that is, expresses his desire to write his own story, he is given help in doing so. From this time on he reads the stories that he has recorded and those of others. The reading of personal composition is important throughout the primary grades but pupils also read many books for interest and research purposes.

In evaluating this approach some might raise a question similar to the one often raised in regard to the individualized plan which is, "Can the scope and sequence of reading skills be covered adequately when the skill development program is left to teachers?" Data in regard to the effectiveness of the program, skillwise, is not available. I understand, however, that such data is now being collected, and that it is promising.

The implications of linguistics for reading method are receiving increasing attention.

One book embodying the linguistic approach to reading has been published. Unfortunately, in the speaker's opinion the authors of this book used the wrong vehicle for conveying their research. The format and the content of the pages are almost identical with those of the elaborate phonetic primers used in the 1890's.

It is hoped that in the future, linguistic specialists who write books for beginning reading will choose a vehicle to convey their findings which is in keeping with our knowledge of child psychology and the results of research in reading as well as research in the areas of children's interests and experiences.

Dr. Lefevre in his discussion and several other linguists here at the Conference stressed that children should first be taught to read and write the same language that they already speak and understand; that a functional linguistic grammar be developed and taught inductively, as an integral part of all language activities in order that there may be maximum reinforcement of skills. This viewpoint, it seems to me, is very sound.

Methods of utilizing linguistic theory in teaching reading are evolving. They haven't quite jelled yet, but much thinking is being done concerning them. We need more *cooperative* discussion and research between linguistic specialists and reading specialists, in order that we may each profit from the other's specialized knowledge.

The basic reader approach still is without a doubt the most widely-used approach in American schools. There is a trend to increase the number of books in basal series, particularly at the first grade level where it is not uncommon to have seven or eight basic books. Then there are additional language books, content books, enrichment books and so on—all extending the basic vocabulary and skills. Diagnostic tests are provided and Teachers' Manuals are filled with helpful procedures for meeting the needs of fast and slow learners as well as the average pupil. Basic reader programs have changed greatly in recent years and all for the good. They probably have changed as much as they have dared to change. In the future, however, we undoubtedly shall see many and more

drastic changes in basic reading material—changes particularly in format and content, to some extent in method.

## Reading Trends at the Secondary Level

Teaching reading in high school is one of the later innovations in American reading instruction, and at the moment this practice is growing in volume like the proverbial snowball. As a result we are suffering with many growing pains.

Schools, however, within their own staffs, guided by astute administrators are in most cases meeting their own problems, providing for their own secondary reading instruction in their own way, and this is how it should be. No one set pattern is appropriate for all high schools, and it is good that individual schools are working out their own solutions. To help them, generous supplies of new materials are being published for use in teaching reading skills to junior and senior high school students. In-service courses are being given to teachers in all high school subject areas, colleges and universities are adding both graduate and undergraduate teacher-training courses in high school reading. Conferences such as this one feature helpful programs dealing with secondary reading.

While most of the teaching of reading is done by English teachers or reading specialists, subject matter teachers are becoming increasingly interested. They are attending reading courses in substantial numbers and are in many instances attempting to do something about reading in their special subject areas. We need much more teacher-training in reading at the secondary level, however, and we need much more cooperation on the part of subject specialists. But on the whole growth in this area is vigorous and healthy.

## Reading at College and Adult Levels

The teaching of reading to college freshmen who are deficient in reading skills is of course becoming a wide-spread practice and thousands of adults in life outside of college are attending reading centers throughout the country.

A great variety of methods, materials and gadgets are used for instructional purposes. One generalization, however, seems to emerge from all reading improvement attempts regardless of method or medium: Participants in the courses do increase in speed, and often in comprehension, but almost always it seems there is an increase in speed without reducing comprehension.

Another generalization might be mentioned: This one was drawn by Dr. Traxler[4] as a result of his most recent summary of research in reading. His generalization is: "No greater improvement in either speed or comprehension can be obtained through the use of mechanical devices than can be secured with more informal procedures."

The two generalizations just stated seem to have clear-cut basis of evidence.

Our research of adult reading, however, is direly in need of improvement. The design of most of the studies reported is one in which nothing more is done than to give parallel forms of a test at the beginning and end of a course. Rarely is a control group used.

Furthermore, the factors measured by research in adult reading have been limited. Studies have dealt predominantly with initial and final measures of speed, comprehension and eye movements as affected by different teaching procedures, instruments and materials. This research should be extended to include studies of flexibility of speed, transfer to various subject areas and retention of improved skills.

There appears to be need also for improvement in the instruction itself. Deverell,[5] for example, after surveying American and Canadian courses arrived at the conclusion that teachers of freshmen reading programs should augment their training by teaching vocabulary, organization of reading, study procedures, critical reading and probably visual perception. Mayhew and Weaver[6] conducted four studies with college freshmen and from the results they

[4]Arthur E. Traxler and Ann Jungleblut, *Research in Reading During Another Four Years,* Educational Records Bureau, New York, 1960.

[5]A. F. Deverell, "Are Reading Improvement Courses at the University Level Justified?" *Invitational Conference on Educational Research,* The Canadian Educational Association, Saskatoon (September 15-16), 1959, pp. 19-27.

[6]Jean B. Mayhew and Carl H. Weaver, "Four Methods of Teaching Reading Improvement at the College Level," *Journal of Developmental Reading,* 3 (Winter, 1960), pp. 75-83.

concluded that ". . . the most effective techniques have not yet been established."

So there are still many challenges in this area.

## Clinical Activities

Now that we have discussed trends at specific levels, we shall consider aspects of reading that cut across all levels. Clinical activities is one of these. Clinicians continue to be active in their searches for causes of reading disability, new techniques of diagnosis, and of treatment.

Dr. Robinson in his talk mentioned that there was a trend toward making use of diagnosis in practical school situations. He also mentioned especially a trend toward greater depth in analyzing test results, and varied approaches toward better diagnosis of brain damage. In the psychological and neurological section, early identification of potential retarded readers and prevention was urged. These are a few of the evidences that lead us to believe that progress is being made in diagnosis.

Biochemistry, blood tests, medication were also mentioned in some of the talks. Experimentation has not proceeded far enough, however, so that diagnosis or remedies of these types have only general applications.

As for teaching techniques, either clinicians are not doing much in the way of developing new procedures or else such techniques are not being reported. Much greater value could be derived from reports if writers would describe their teaching procedures more specifically.

The clinic as a whole is a very significant development in American reading instruction. Its value is attested to by the fact that public school systems throughout the country are adding clinics and clinicians to their reading improvement facilities and Staffs. Before too long, social agencies, industry and business may sponsor reading clinics in their respective organizations.

Our reading clinics of the future may serve more individuals at both age extremes—older people who wish to improve their reading ability, and younger children whose parents want to find out of they can take reading instruction safely, and if not what can be done to ensure reading success when instruction begins.

In evaluating clinics I have one strong suggestion for improvement, particularly in cases of clinics operating in departments or schools of education. Most clinicians in such situations should raise their services to a higher level. Instead of devoting practically all of their talents, knowledge and time to diagnosing and teaching a few retarded reading cases, they should envision their major functions as those of demonstration and research; demonstrating diagnostic techniques and procedures not only to teachers in training but to teachers in the public schools; conducting research to add to our information more about causes of difficulty and more effective treatment procedures. These grass-roots contributions of clinics should be nurtured and expanded.

## The Teaching of Literature

I was pleased, indeed, that the teaching of literature was discussed in several of our section meetings. Appreciation of and taste in literature should receive much more attention in our schools, and I'm speaking particularly of elementary schools.

Results from studies indicate that we have a big job ahead in developing wholesome interests and discriminating tastes in reading literature, together with the necessary skills. As Dr. Hartley said . . . "reading literature requires particular skills and techniques that must be learned." We need to give more attention to these *particular* skills and techniques.

While we have made tremendous strides in the last decade in increasing the *amount* of voluntary reading which children do, we haven't done so well in regard to *what* they read. Our next big frontier is that of developing more discriminating *tastes* in literature.

## Automated Teaching of Reading

There are several influences in our present civilization which are presaging wider use of automated facilities for teaching reading: the population explosion, the scarcity of teachers, and the technological revolution. In the midst of this jet-propelled technological age it is

but natural that many are turning to automation as a solution to our teaching problems in reading.

Television is being used in some schools for teaching reading, but the classroom use of TV for reading instruction has not expanded as rapidly as some people had anticipated. A rather new development is that some local commercial broadcasting systems are giving instruction in reading, and national systems may soon do so.

Perhaps the most noticeable recent expansion of TV insofar as its service to reading instruction is concerned is its use in giving teacher-training courses. We have reports of professors using TV in college reading courses for teachers and several reports of cities using this medium for in-service training of teachers.

As one example of this practice: Fifteen sessions of TV instruction on methods of teaching reading were given to a group of 5,868 teachers this year in New York City. In a preliminary report of the effectiveness of this TV course it was stated that nineteen out of every twenty of the 5,868 [illegible] found that [illegible] helpful in [illegible]. In the case of college courses in teacher-training, TV permits the instructor to demonstrate teachers and children at work applying the methods discussed in his lectures, and this is a real advantage. TV has a great deal of promise, for use in this capacity.

Films and film strips are being developed for use in teaching reading. Some of the basic series of readers have developed film strips to accompany early readers in their series. A series of beautifully colored films has been developed by Bamman and Dawson[1] on the well-chosen and significant aspects of reading. Coronet Films has a series on "Reading Improvement," and there are others. We probably shall see many additional film developments in reading in the future.

At the present time, it is the teaching machine that is claiming the spot-light in automated teaching, and you heard about this from Dr. Komoski.

Reading, however, is one of the last of the subjects to yield to the teaching machine. Some reading frames have been developed, however, and many more are on the way.

In evaluating the use of the teaching machine in teaching reading we need to recognize that the machine makes its best contribution to learnings that have to be fixed, facts that have to be memorized, processes that have to be made automatic. The reading frames for working with text which I have seen have used objective response-type exercises which on the whole check literal comprehension. More important, however, than literal comprehension are the processes of interpretation and critical reading. These processes do not always result in one exact answer. It would seem that the maximum growth in interpretation and critical reading would result only in situations in which the teacher stimulates thinking, with guiding questions, analysis and responses, and in which there is discussion of the thinking [illegible] a group of [illegible].

The teaching machine may be used to give practice on certain aspects of reading, but certainly it would be quite improvident to think that we could hand over the major responsibility for reading instruction to a teaching machine, and proponents of teaching machines do not expect this to be done.

## Some Answers to the Criticisms of American Reading Instruction

A few years back we suffered from a minor "Flesch" wound. Now we are being stabbed all over!

The attacks of the critics seem to spring from two basic assumptions: (1) that the children of America are not reading as well now as in former times; (2) that the reason for the lowered achievement is that the schools are teaching exclusively by the

[1] Henry A. Bamman and Mildred Dawson, Films in the Teaching of Reading. Chicago: Coronet Films, [illegible].

word method, which some of them have dubbed "the cancer of configuration." They are crusading for the return of phonics to the schools as the only way in which literacy in future America can be ensured.

First, I should like to discuss the word method versus phonics controversy. Both word method and phonics have had peripatetic existences in American history. First one is in and the other is out and vice versa. This is an old, old story.

For the first 175 years of our history children learned to read without the benefit either of word method or phonics. Then after the Revolution phonics entered the scene. Noah Webster was concerned about unifying the various languages spoken in America. He analyzed the English language into sound elements, prepared his Blue-Back Speller based on these elements and launched it in the schools. His assumption was that if all children learned to sound the letters, all of them would pronounce words in the same way.

This is the only period in American history in which educators and authors of readers have advocated the word method as the sole method of teaching word recognition.

About 1890 complaints arose similar to the ones that we hear now. Children weren't reading well and it was all blamed on the word method. A sharp reversal of practice followed. Elaborate phonic systems were evolved and new readers were published in which children were started out in first grade memorizing letter sounds, and the most of the reading time in the first grade was devoted to drill on phonic elements. This appears to be the sort of thing that our critics want us to return to.

The extreme emphasis on phonics in beginning reading and throughout first grade characterized the most widely-used methods until about 1920. Then we

1910 and 1920. Standardized reading tests appeared for the first time. As a result of administering these tests in school systems school people were appalled to discover the extremely large number of children who were not reading well or often not at all. These pupils, who were simply calling words and didn't know what they were reading about. How extreme emphasis on phonics was blamed. Silent reading with emphasis on meanings came in and phonics was practically abandoned for about fifteen years. If this were the period in which the critics say we were not teaching phonics they would be right. But this period has long since been dimmed in the annals of history.

About 1935 schools again became deeply concerned about the numbers of children who were not learning to read, they re-examined phonics, and some investigators carried on studies revealing that the study of phonics was effective. Phonics began to come back gradually and it has been coming back ever since. During the last ten years phonics has been taught more generally and more extensively than

phonics from first grade through sixth as well as stressing other word attack skills. Dr. Barclay[8] reported as a part of the Columbia-Carnegie Study that teachers throughout the country believed overwhelmingly in the teaching of phonics, and in addition they taught other methods of word attack. Dr. Mary Austin[9] in her preliminary report of the Harvard-Carnegie Study stated that she found no school system which omitted phonics; and that all except one mixed phonics with other word attack skills as recommended by most authorities.

One of the chief differences between the phonics of the early 1900's and the present phonics is that the phonics of yesteryear was taught in one large dose in

[8] Alvin Barclay. Report given at "A Public Conference on Reading" Chaired by James Conant, New York, September 21, 22, 1948.

[9] Mary Austin. Personal Letter to Dr. [illegible]

beginning first grade, while the present practice is to start children out reading experience stories and to delay the teaching of phonics in first grade until such time as initial interest in reading, attitudes toward learning to read, and foundations of effective experiences are established. Then phonics *is* taught in the first grade and throughout all of the other elementary grades. Phonics, however, is not generally used *exclusively* as a method of attack. The word recognition program is strengthened by teaching the use of context clues, structural analysis and dictionary skills, as well as phonics.

So in response to the criticisms dealing with phonics versus word method we can say:

1. The pure word method probably does not exist in any school in the country today.

2. The type of phonic teaching which the critics are urging was abandoned in our schools some forty years ago because such large numbers of children were not learning to read.

3. [illegible]

[illegible]

Now what about that "crisis in reading" that the critics are talking about? Is it true that reading instruction is degenerating in its effectiveness? Several comparative studies have been made which are favorable to present-day results. Worcester and Kline[10] compared test scores of 1921 with those of 1947 in Nebraska; Miller and Lanton[11] compared scores of 1934 with those of 1954 in Evanston, Illinois, and Gates[12] compared scores of 1937 with those of 1957 derived from representative groups throughout the United States. All of these investigators found gains in the scores of youngsters taught at the later date.

"What about all these remedial cases you hear about today?" is a question frequently asked, and it is usually followed with a statement something like this: "I never heard about remedial cases when I was in school," and this is supposed to be a sort of bad because we have so many remedial cases today.

Let me answer that question with an example from the field of medicine. I was in the home of a physician a few evenings ago and I repeated to him a question which I recently had heard an elderly gentleman ask. The question was, "Is this heart attack malady something new? I never heard about it when I was a boy."

"Of course he didn't hear about heart attacks because doctors didn't know anything about them," was the reply. "They knew about other kinds of heart trouble but not the heart attacks you hear about today."

Then my physician friend went on to explain that for many years this affliction was treated as acute indigestion. When individuals had what is now commonly known as a heart attack they were given sedatives for stomach trouble, and [illegible] and it was not until Dr. Herrick delineated the affliction and its symptoms so clearly that the average clinician was then able to identify it, understand it and treat it. With the identification of the trouble and all the research that accompanied it the public became conscious of this malady and now we never hear of "acute indigestion" but we continuously hear of "heart attacks."

I'm sure you sensed my intended analogy long before the heart attack story was finished. Just let me say briefly that the science of remedial reading also has developed tremendously in recent years. We now know how to identify remedial readers, and we have developed ways of diagnosing and treating them. And along with these developments the term "remedial readers" has become as common as "heart attacks." The layman often jumps to the conclusion that since he has only heard about remedial readers in [illegible]

[illegible]

[10] J. A. Worcester and Anne Kline, *Reading Achievement in Lincoln, Nebraska*, University of Nebraska Teachers College, Lincoln, Nebraska, 1947.

[11] Vera V. Miller and Wendell C. Lanton, "Reading Achievement of School Children—Then and Now," *Elementary English*, 34 (February, 1957), pp. 94–98.

[illegible]

Another point: not all remedial cases are word recognition cases and it follows that inability to use phonics is not necessarily the *sine qua non* at the root of all reading disability. As we all know reading deficiency may be due to lack of intelligence, brain damage, neurological defects, physical diseases, language handicaps, lack of experiential background, emotional disturbances, and so on. How naive the critics are in claiming that all reading disability is due to the fact that we don't start children out sounding letters immediately upon entrance in the first grade!

Now let's examine some figures: our critics claim variously that from one-half to three-fourths of the children in the United States are behind in reading achievement and that at least thirty-five per cent are seriously retarded in reading. I don't know from what sources these figures are derived. I have reviewed many studies of the incidence of reading disability and I can't find studies which show so high an incidence as the critics claim.

I have turned to two of the most reliable sources I know of for their latest figures. The National Council of Teachers of English recently reported that there are nearly 4,000,000 pupils in elementary schools having reading disabilities. The Office of Education in Washington states that its latest figures on elementary enrollments as a whole was a projected enrollment of 24,686,000 children in elementary grades for the fall of 1961. The 4,000,000 reading disability pupils would constitute sixteen per cent of the total. We regret of course that the per cent is this high and we must work vigorously to reduce it. The important point that I want to make, however, is that sixteen per cent is far below the number estimated by our critics.

Going backward for a moment, we find in the Twenty-Fourth Yearbook of the National Society for the Study of Education[18] published in 1925 this report: "Statistical studies make it evident that something over thirty-five per cent of the children (tested in 1924) are educationally retarded." If they were "educationally retarded" we may be pretty sure that they weren't reading well. Thirty-five per cent in 1924 is a pretty large number.

It should be pointed out also that these "educationally retarded" children in 1924 were children, on the whole, in the "crop" that had received reading instruction with the start-the-first-day-on-phonics-drill method used so widely between 1910 and 1920.

And while referring to the effect of this extreme emphasis on the old type of phonics, might we pose this question: If this emphasis on phonics was such a good method why are hundreds of men forty-fivish and, fiftyish flocking back to reading centers now to learn how to read better? They, too, were taught by the beginning first-grade isolated drill phonics method.

Now for the illiterates: in consideration of the imaginary illiterates of tomorrow let's take a quick look at the real illiterates of today. President Kennedy, as you know, is initiating a drive to wipe out illiteracy. The 1950 census showed that there were about 9,500,000 functionally illiterate adults in our country. Kennedy's special educational census in 1959 showed that the number of functional illiterates had dropped to 7,800,000. So it appears that without any special attention the number of illiterates declined by about 2,000,000 or twenty-two per cent in nine years. This does not substantiate the dismal prediction that nearly all of our population will be wallowing in the abysmal quagmire of illiteracy in the years ahead.

So it seems we have been making progress during the last several years—much more progress than our critics have been giving us credit for. We must not fail to recognize, however, that we do need to make even greater improvement in the future. According to Dr. Austin's "Preliminary Report of the Harvard-Carnegie Study," the teaching of reading in our schools is mediocre. (Let me hasten to add that the findings indicate that this mediocrity is not due to lack of effective methods available; it is due to the fact that teachers are not making use of methods recommended by authorities.) The chief recommendation in Dr. Austin's report is that teacher-training in reading should be extended and improved both in the offerings of colleges and in in-service courses of school systems. I am sure that this recommendation is sound and urgent.

[18] *Twenty-fourth Yearbook of the National Society for the Study of Education*, Bloomington, Illinois: Public School Publishing Company, 1925, p. 22.

The research reports presented in this program were stimulating and constructive but nearly all of them ended with, "We need further research on this aspect of reading." And we do need further research, much more of it on all aspects of reading, and particularly in regard to the perceptual processes used in reading.

We in the field of reading know that the old method of teaching phonics broke down, and most of us are not in favor of returning to a discarded practice. What *we* should be concerned with is the whole area of perception. The public in its laity talks about phonics because phonics is an easily identifiable concept. Phonics is but one aspect of the total perceptual process used in reading. We need desperately to find out more about perceptual processes both auditory and visual. We need definitive and convincing research in regard to different units of recognition — their length, timing, sequence and their effects on reading ability; we need new tools for diagnosing perceptual ability in its many facets—not just in regard to matching pictures and recognizing letter sounds; we need to create new methods and devise new materials for use in developing different aspects of perception. The perceptual process is a frontier—an important and urgent frontier for our professional exploration. Let's raise our sights above the outworn topic of phonics versus word method and delve deeply into the whole area of perception in search of better ways to teach word recognition.

In addition to these recommendations, we need also to put more effort, more concentrated, inspired, dedicated effort into the teaching of reading and into the learning of reading. In almost every public address given by U. S. Commissioner McMurrin, he urges "more vigorous" education.

Because of the competition which threatens our democratic way of life, leaders in all aspects of our society are pushing production to new high levels. I wonder if we, as teachers of reading, have really meshed ourselves in with the pace of America's stepped-up endeavors? More specifically, are we in the field of reading working hard enough at the job of teaching this skill that is the very key to all other educational achievement? And are we holding our pupils up to the high standards of which they are capable?

Superintendent Paul McDonald of South Williamstown, Massachusetts said: "We are a wealthy country and we provide wonderful things for our children, but although we have built our wealth by hard work and sacrifice, we are often too reluctant to ask our children to do the same. . . . We should perhaps take a look at ourselves to see if we have the courage to hold our children to high standards of performance." This is a serious and a provocative thought.

In addition to holding pupils to higher standards, however, we need to encourage them to do the work that is necessary to achieve these standards. Agricultural scientists have found that a baby chick must make five hundred pecks to get out of its shell in order to be strong enough physically to endure the rigors of the outside world. Sometimes a kind farm woman feels sorry for the little thing and opens up the shell so the chick can emerge. The chick being immature physically either dies or lives on as a weak chicken. Let's make sure that the pupils in our care make their five hundred pecks, whether it be in phonics or whatever, in order that they may emerge as strong readers.

And let us make sure that we, ourselves, make the five hundred pecks that are necessary in getting reading results. Most of us need to work harder, to put more of ourselves into the job, to teach reading more vigorously.

Now what about our immediate adjustments in methods? Are we going to succumb to the critics or not? It is said that the psychoanalysts have developed a new version of the story of "The Ugly Duckling." According to their version the duckling never finds out that he is a swan. He simply undergoes analysis and adjusts.

We, like the ugly duckling, are troubled now because other birds are pecking at us. We certainly *are* undergoing analysis, analysis by people not trained in our field of specialization, by people who either are uninformed or misinformed concerning the history of reading, the research that has gone on in this field, our present practices, and our plans for future research.

I think we should be more voluble in

acquainting the public with facts about the word method and the phonic method and about *all* of the other skills needed in well-rounded reading competency; about the results of research and the efforts of the people in their own schools and everywhere who are striving to improve reading. Let us give this information through such mediums as letters or articles to local papers, talks to the meetings of Lion and Kiwanis Clubs and other community agencies, and certainly talks at our parent-teacher meetings. We, the school people, have an opportunity that no other agency has—the opportunity of working in close contact with practically all parents of school-age children in the nation. Let us make the most of this opportunity and acquaint the public with the facts.

In addition to giving information I would hope that somehow we could instill within all parents the concept that the way in which they could make the greatest contribution to reading improvement is to give their whole-hearted loyalty and support to the public schools and the personnel who are now dealing with their children. Loyalty would raise the morale of administrators and teachers who are responsible for reading instruction. Financial support would enable us to pay salaries that would attract highly-trained individuals in sufficient numbers to staff our classrooms adequately; it would enable us to place libraries in all elementary schools; it would ensure an abundant supply of reading materials in classrooms; it would enable us to do more research in reading. All of these things are needed in developing greater reading competency.

Yes, the public could make a tremendous contribution to reading improvement if they would more vigorously direct their loyalty and support toward these larger goals.

As for ourselves, we shall be making adjustments, of course, probably more during the next ten years than we have previously made in the whole history of reading instruction. We are open-minded people; we are flexible in making change, we are willing to retool if research shows us that it is desirable to do so. I am confident that we shall make many salutary changes in the future not as a result of layman pressure, but as a result of sound and convincing research conducted in our own field.

My final evaluation of American reading instruction is that in terms of new techniques, new materials, and of statistical data we have made excellent progress during the last two decades. We have no occasion for chagrin. We should be proud, very proud, of our accomplishments!

So let us push forward vigorously, much more vigorously than ever before; provide and participate in more and better teacher-training; keep our minds open and unprejudiced; change when experimentation justifies change; let us maintain unequivocally our professional integrity; and continue to dedicate our specialized knowledge, our efforts, our aspirations to the improvement of American reading instruction.

12.

Vol. 9, 64

# SEQUENCE III DEVELOPMENTAL READING WITH BASAL MATERIALS

## A. ELEMENTARY SCHOOL

### 1. Building a Developmental Reading Program

FLORENCE SPERLING

PERHAPS in no other area of the curriculum has more been accomplished in evaluation and research than in the area of reading instruction. With concern for the kind of reader who will be a mature reader in the 1980's, today's teachers are forced to consider all facets of learning, taking the best from the old and incorporating much of the new. How this is done will depend upon the philosophy of the school system where the teacher works.

As the result of a recent study, "The First R," sponsored by Harvard University and the Carnegie Corporation under the direction of Mary C. Austin, recommendations were made to imbue teachers with a philosophy of teaching reading appropriate for today and tomorrow. The forty-five recommendations made in this study are, in part, concerns of all developmental programs. They give the what, when, and how for program planners—*what* constitutes a good program, *when* pupils are ready to profit from direct instruction for the maintenance and refinement of skills and literary appreciation, and the *how* of teacher performance.

Developmental reading, developed over the past decade, tends to incorporate sound principles from both the traditionalist and progressive point of view. Learning-to-read is begun in kindergarten or first grade and continued as a developmental process through skill building. Also, reading-to-learn soon is found a necessary process which continues to spiral as the learner progresses. How we go about accomplishing our goals for all readers necessitates educating with concern for individual differences, and using materials which can be adjusted to varying needs of the learner.

The organizational plan just outlined places emphasis upon reading as the first *R* in the language arts program, and provides better opportunity for a teaching-learning situation within each group of individuals. Teachers, regardless of the group of youngsters—whether the group be mentally retarded, maladjusted, gifted, average or remedial—must plan for differentiation of instruction within each group. The developmental program attempts to develop growth in skills so that words produce meaning, specific reading skills develop better comprehension and the reader learns to think as a result of his skills training.

In order for teaching-learning to result in this kind of program, materials are essential for the teacher. This plan requires basal readers, supplemental readers, literature series, and classroom libraries to provide challenging materials for all levels of performance. Boys and girls must have opportunities to use encyclopedias, dictionaries, globes, charts, and many other reference materials. The many fine trade books for different reading levels and interests must be included. No single basic material can be used to do the total teaching job.

The developmental approach to reading considers the individual, his perceptual skills, his intellectual ability, experiential background, and stages of physical, emotional, and social background. This means that within each classroom there are wide ranges of differences among the individuals, hence, organization is necessary to provide equal educational opportunities so that each may learn and progress at his own rate.

Organizing classes into sub-groups so





that individual differences will be met, necessitates careful consideration of the ability and performance of each child. Some children are identified as having intellectual abilities low enough to require placement in special education classes. Others are diagnosed as emotionally disturbed or socially maladjusted and they benefit by a special class where there are not more than six youngsters, with a teacher who is understanding of their needs. There will be very able readers who should have an opportunity to meet for reading as a group with a special teacher to develop basic skills and literature appreciation. The wide range of average readers within the two extremes may work in groups with the regular classroom teacher. Children with reading difficulties far below the average reader's should work as a group with the developmental reading teacher who instructs at the performance level of each individual.

The special service personnel needed to support the developmental program in each elementary school are the administrative and instructional leader, the principal, and the developmental reading teacher to assist him and to instruct. Also, available to each school is the visiting teacher who is a reading specialist, the school psychologist, the school nurse, and members of the central staff. These persons all work toward improving reading services within the elementary school.

Developmental reading programs as just outlined, are in operation with success in many areas. Teachers and administrators are striving to meet the goals set, but still there is much to be done. The reader we produce for the Eighties requires a constant challenge and honest evaluation.

47.

13.

Vol. 20, 68

# 4. Reading Programs in the Elementary Grades

415.

ANTHONY P. WITHAM
Monroe Public Schools
Monroe, Michigan



THE 1960's have brought an unprecedented degree of unrest among educators in seeking new and more effective methods and materials in teaching children to read. Never before in the history of American education have we witnessed such extensive local, state, and national experimentation, particularly in the area of beginning reading instruction. Never before have primary grade teachers been confronted with the task of keeping abreast of such a variety of instructional materials and aids. Publishers in their quest to produce materials which are consistent with the findings of contemporary research in such fields as reading readiness, phonics, linguistics, programed learning and individualized instruction, are merging their respective talent and resources with fellow publishers.

## Reading Readiness

At the kindergarten level, major attention continues to be on the type of reading readiness program which best meets the need of the five-year-old living in the space age. One needs only to review professional literature to observe the current interest and concern over whether the traditional kindergarten readiness program of providing general experiences should be side-lined in favor of more direct and systematic activities in the reading readiness skills. While the present school of thought of promoting formal reading experiences in kindergarten is not meeting with any significant enthusiasm by educators, there appears to be, nevertheless, a general agreement that more positive experiences can be integrated in the modern kindergarten program.

Donald D. Durrell, among others, has stated that the greatest single area of improvement in reading instruction in recent years has centered about reading readiness. According to Durrell, research has been indicating that visual and auditory discrimination appear essential to the acquisition of a sight vocabulary, each of which can be taught late in kindergarten or early in the first grade.[1]

Dolores Durkin, in attempting to bring reason to the traditional *vs.* the modern viewpoints on the intensity of the readiness program, suggests that "if kindergartens, as a whole, are to avoid both boredom and frustration, and if they are to build on the abilities the children bring to school, then at least some kindergarten programs should offer opportunities to learn to read, either because the children arrive with the beginnings of reading ability or because, over time, they show an interest in learning."[2] Durkin is making a strong plea for the child, who because of a restrictive state law and a December birthday, has reached a chronological age of five years and nine months, and after completing a year in nursery school must now spend an additional year in kindergarten prior to first grade entrance. Obviously, this is but one type of child ready for more than what a traditional program could offer.

While controversy continues over the nature of readiness programs, it would appear that authorities tend to agree on a more positive program of enrichment aimed at developing the child's social, emotional, visual, auditory, language and listening behavior.

Durkin states that "it seems safe to predict that our conception of the role of kindergarten education will be broadened to include much more variety in the curriculum and, consequently, more need for small-group and individual activities."[3] Preliminary findings of the Denver Study appear to be supporting this thesis. To incorporate recent findings, however, it would seem that fewer students and a longer kindergarten day will be required.

## Phonic Programs

Phonics remains an essential part of the primary word recognition program. Controversy continues, however, over such questions as: "Phonics—How Soon?", Phonics—How Much?" and "Phonics—How Often?" As one reviews the generous array of independent and supplementary phonic programs available to the grade teacher, one finds that some insist on teaching phonics as early as kindergarten, while others are recommending greater consistency and continuity that basal programs suggest in teaching the spectrum of phonic skills.

Publishers of such phonic programs as Phonetic Keys to Reading, The Phonovisual Method, Word-in-Color and Breaking the Sound Barrier, are generally recommending their use as supplemental to the basal program. Their respective authors generally concur on one point—phonics should be introduced earlier and with more direct emphasis than most basal series would suggest.

## Linguistics

After many years of frustration, linguists are, at long last, making their contribution to the field of reading instruction.

Leonard Bloomfield, as early as 1942, began emphasizing that *language* is the principal means through which our experience of the world and of ourselves can best be understood and symbolized. Such contemporary linguists as Fries and Lefevre continue to remind the reading teacher that *spoken English* is a symbolization of the human experiences of our chil-

[1]Donald D. Durrell, "Some 'Musts' in Reading Research." *National Elementary Principal,* 35 (September, 1955), pp. 17-20.

[2]Dolores Durkin, "Early Readers — Reflections After Six Years' of Research," *The Reading Teacher,* 18 (October, 1964), pp. 3-7.

[3]*op. cit.*

48.

dren; *written English* is a symbolization of our language and, thus, a symbolization *of* a symbolization. As a result of this syllogistic reasoning, the linguist considers it unscientific to equate the word "language" with printed materials to be read by students.

The concern of linguists with the teaching of reading is totally justified in that their interest is centered about the relationship between *language as spoken* and the *representation* of spoken language in writing systems—the very foundation for the reading process. The basic point they wish to reinforce in the minds of the reading teachers is that writing and reading assumes a secondary role to the spoken language. Our language is the utterances we make, not the symbols we write or read.

There remains, however, much internal controversy among linguists on the precise manner of teaching beginning reading instruction. Chall comments that:

> Different linguistic scholars make different interpretations of the relevance of linguistics (the scientific study of the nature of language) to beginning reading, and come out with different reading programs. However, the most current linguistic innovations agree on at least one point—they take issue with the broad definition of beginning reading of conventional programs . . . they propose that the "decoding" aspects of reading be the first emphasis, to be followed later by the broader aspects of meaning, appreciation and application.[4]

As a result of the new attention being given to the recommendations of the linguistic scholar, several new basal series, such as: *The Linguistic Science Readers; Read Along With Me; Language for Learning Series,* are appearing on the market for classroom use. In addition, several of the traditional basal reading publishers are incorporating linguistic principles into their programs.

## Experimental Programs

In 1964, more than 26,000 first grade children and over 800 teachers, joined in a one-year experiment sponsored by the U. S. office of Education. It is being conducted under the auspices of approximately 27 universities and state departments of education. Some definitive answers are being sought to a question of increasing concern to educators: "What is the best way to teach children to read?" This historic large-scale cooperative research project will utilize the principle of individual projects exploring the following approaches to teaching children to read: the *language-experience approach* which gives emphasis to the linguistic principle of "what I can speak, I can write; what I can write, I can read;" and integrates reading as part of a total language arts program; a *linguistic approach* which places heavy emphasis on the sound-letter relationships in the English language; the Initial Teaching Alphabet which substitutes new alphabet symbols to provide 44 symbols for the 44 sounds in our spoken language; the *eclectic approach* which combines various methods that form the traditional basal-reader method.

Data collected from this historic study will be coordinated and analyzed at the University of Minnesota at the conclusion of the current school year.

In addition to these methods being evaluated under controlled conditions on a national level, wide experimentation continues with other equally promising approaches.

Individualized Reading, utilizing a wide range of trade books and other unstructured materials in place of the traditional basal, continues to grow in interest and in use in our grade schools. This personalized approach to reading instruction still appears more appropriate in the hands of the reading teacher experienced in diagnostic procedures and individualized techniques of instruction which encourage self-selection and self-pacing on the part of the young reader. Any effective reading program, however, will integrate some of the underlying principles inherent in Individualized Reading within a basal-centered developmental program.

Programed Reading, a relatively new approach, finds its advocates in those who emphasize *self-learning* through the format of sequentially prepared materials designed so that the beginning reader proceeds from the simple to the complex—analyzing and pacing himself along the way. Two of the pioneering programs in this area, *Programed Reading* and *First Steps in Reading,* rely heavily on phonic-linguistic principles. The subject matter of these two programs consists essentially of discrete words and sentences, combined with some interesting and humorous illustrations.

An increasing amount of materials is becoming available to meet the cultural needs of disadvantaged children. *The Detroit Great Cities Series,* pioneering in this area, integrates the white and Negro child in its story line and illustrations and attempts to provide more realism and meaningful experiences for the economically and culturally impoverished child.

[4]Jeanne Chall. "Innovations in Beginning Reading." *The Instructor.* March, 1965, p. 93.



## Summary

In analyzing all of the "current ventures" in elementary reading programs, it would appear that several underlying principles influence both the format and content of these experimental approaches: earlier and more direct attention to the teaching of letter-sound relationships; more realistic and imaginative story content; greater concern for the *spoken language* as it relates to the written and printed language; greater individualization of instruction; and increasing opportunities for the child to become more self-directive in the learning process.

Until such time as educators can point with some degree of certainty toward more effective approaches in teaching children to read—based on scientific data—elementary teachers are proceeding with a variety of approaches which are most appropriate to the abilities and cultural needs of their assigned students.

14.

Vol. 7, 52

# 6. Organizing for Reading Instruction in Grades Four, Five, and Six—A Four-Dimensional Approach

38.

JOSEPHINE B. WOLFE

No topic receives wider discussion among leaders of intermediate grade pupils than "Organizing For Reading Instruction." No topic causes greater anxieties! No topic receives more publicity in the literature! Yet, if we examine the history of education, we find that the "rise or fall" of *any* organizational plan depends upon the "know how" that is applied to three generalizations drawn by researchers: (1) the higher the grade level, the wider the range of differences within a class; (2) good teaching-learning situations increase the range of individual differences existing in a classroom; and (3) interests widen and vary as pupils mature.

Never has there been an organizational plan created that can be followed by all teachers with all pupils! Good organization is best accomplished by a dimensional structure, with each dimension "tailored" to the individuals who are to use it. Four dimensions will be reviewed in this presentation—Design, Diagnosis, Direction, and Destination.

## Design

*Design* is not structured incidentally. Inner action and inter-group action, resulting from self-interrogation, will lead to acquisition of *beliefs, understandings,* and *desires* for improving reading instruction. To determine your design, you may wish to react to these queries:

1. Do you understand the reading process?
2. Do your pupils enjoy reading?
3. Do you know the role your school is accepting in developing a society of readers?
4. Do you know the potential capacity and reading status of each individual?
5. How do you encourage each pupil "to do his best"?
6. Which do you emphasize more among your pupils, *participation* or *competition?*
7. Do you provide equal educational opportunities for your pupils—the more able, the average, and the less able readers?
8. Do you permit your pupils "to learn and grow in reading" at their own pace?
9. Is reading emphasized as the third phase or the first phase of your language program?
10. Do you provide opportunities for your pupils to implement reading skills creatively and functionally in the content areas?
11. Do you provide a reading program that functions in *all* the daily activities of each individual's life?
12. Do you know the general, the basic, and the specific reading skills that should be introduced, developed, and maintained with each individual at each level?
13. Are your pupils flexible readers?
14. Do you guide the individual in selecting and using all available instructional materials?



## Diagnosis

Good reading instruction is impossible without an accurate *diagnosis* of each pupil's capacity to achieve, his present level of achievement, his specific strengths and weaknesses, and his current independent reading level. Though standardized tests can be used, they usually test verbal ability. However, informal tests of mental ability, of silent reading, oral rereading, and oral reading achievement present a more comprehensive evaluation of *"what a pupil can do"* and *"what he is doing."*

Another effective method of diagnostic study is stock taking during daily reading activities. The following "specifics" may be observed:

1. Are the pupils able to pronounce and discuss the *concepts* and *new words* that are introduced?
2. Are the pupils able to formulate varied questions about the topic being read?
3. Do the pupils understand 75 per cent of the questions asked during the guided silent reading? Can they verify their answers?
4. Do the pupils ask for help with *less than* one out of twenty running words during the silent reading? During the oral rereading?
5. Are the pupils *free of* finger pointing, thumbing, lip movement, vocalization, and other tensions during the silent reading and the oral rereading?
6. Do the pupils exhibit faulty oral reading habits such as word-by-word reading, substitutions, and/or regression of words?
7. Do the members of each reading group complete their guided silent reading at approximately the same time?
8. Can pupils assess their individual strengths and weaknesses?

## Direction

*Direction in organizing reading instruction* requires careful evaluation of goals and needs. An administrative model (a plan for organizing reading, instruction), the minimum essentials of reading instruction, and the use of wide and varied materials *must be carefully examined.*

## The Model

In examining each of the many existing administrative *models* — the New Castle Plan, the Joplin Plan, the New York City Plan, and the plans for grouping within a classroom with basal readers — there appears to be one common objective, *teaching each pupil to read effectively and efficiently within the limits of his capacity to achieve.* Yet, practitioners perennially cope with the problem, "Which *model* is best for us?" Formulating a sensible and reliable plan is simple, *if* individual differences are recognized, *if* well-known principles of learning are observed, and *if* known and accepted principles are followed. Most of the fanatical enthusiasts and faddists who recommend patent "cure-

50.

alls" accede to each factor, but cohere to none. However, *your choice of model* must be determined by *you!*

## The Minimums

If an administrative model is substantial, it provides for the minimum essentials of reading instruction: *interests, word perception,* and *thinking*. Each is indispensable and inseparable. Each can be accomplished within the elements of a well-planned and systematically developed reading lesson.

*Interests*

One of the chief purposes of teaching pupils to read is to help them to develop a permanent interest in reading. To nurture reading interests of boys and girls, teachers have four responsibilities:

1. To understand the sequence of pupil growth and development in relation to pupil interests.
2. To provide a favorable environment conducive to a desire to read.
3. To supply a wide and varied range of readable materials.
4. To help parents to understand, as well as to encourage, the interest facet of reading.

*Word Perception*

Many parents and teachers believe that reading is limited to the pronunciation of words. This is unfortunate! Of course, the competent teacher and parent know that to *read a word is to recognize it and know its meaning.* This necessitates that each pupil be equipped with a multiplicity of word perception skills. Automatic and appropriate use of these skills will ease comprehension, not impede it. To "equip pupils," teachers must be aware of each *general, basic,* and *specific reading skill,* knowing when each is introduced and when each is maintained. We should remember that we are training pupils to read *concepts,* not *words!*

*Thinking*

Readers think! Thinkers read! To understand language is to think it! Whether a pupil manipulates words *or* understands concepts distinguishes him as a "non-reader" or a "reader." Because thinking cannot be mechanized, many pupils are deprived of the privilege of being taught to think. But, with competent guidance, pupils can be stimulated to think within the limits of their potential capacity, their experiences, and their interests. Literally, the real business of teaching reading is teaching thinking!

## The Materials

Acquisition, organization, and use of materials have a vital bearing on the success or failure of a reading program. There is an urgent need to provide materials that will enable pupils to achieve the essentials of reading instruction. Basal readers, with their workbooks and teachers' guides, are an important part of a well-planned reading program whether they are used basally, co-basally, or tri-basally. However, a reading program that provides for varying levels of reading achievement and aims to stimulate and to satisfy the interests of its clientele cannot confine itself to basal readers. Boys and girls must have access to a multitude of trade books, encyclopedias, globes, charts, films, filmstrips, and other instructional materials. Bluntly, there is *no single tool* for teaching reading!

## Destination

*Destination* is the most dynamic dimension. *The organization of a reading program in grades four, five, and six* whereby each pupil can achieve his potential and develop a zest for reading should be the sight set by the members of our profession who desire to organize and to provide a program of reading improvement. Of course, the perceptive leader is cognizant that a *destination* of this nature will be a challenge for the competent, a perplexity for the inept, and "another pedagogical demand" for the complacent. Goals, patterns, materials, and a knowledge of the minimum essentials are not enough! It is the *use* teachers make of these with each individual that determines whether we produce effective readers of today and active, able readers of tomorrow.

51.

Vol. 9, 64 15.

# 4. Integrating the Language Arts: A Practical-Practicable Approach 116.

JOSEPHINE B. WOLFE

THERE are two statements on which people concur. First, the citizenry who have difficulties using and interpreting language is handicapped. Second, inability to listen, to speak, to read, and/or to write cripple one's power to communicate effectively and efficiently. Yet, what kinds of practical know-how are we, the professionals, suggesting to improve the language proficiency of those we teach? If we were to examine this question thoughtfully, I am fearful that we would find that the suggestions being offered are neither wide nor varied. Why? Probably the most persistent reason is that many professionals prefer to rationalize their actions by claiming that students of yesteryear used language with greater proficiency than students today. These same professionals attribute the "so called" success to the vast amounts of stereotyped drill experienced in the mechanics of language. (Conversely, extremists today claim that students do not need structured systematic instruction.) Of course, you and I know that such thinking is fallacious. However, we must remember that the voices of such "rationalizers" are heard and that their thoughts are accepted by some of our professional and non-professional citizens. What, then, can be done?



## Integrating the Language Arts

### *Practices: Common or Uncommon*

Before suggesting a practical and practicable approach for integrating the language arts, it is only prudent that we review current practices. Some of these shall be identified below. Whether you classify each as *common* or *uncommon* will depend upon your community, your school with its administrative-supervisory staff, your curriculum, and most of all YOU. The following are observable in a sufficient number of classrooms to be labeled practices in teaching "language arts."

1. Tradition affects *what is to be taught in language, when it is to be taught, and how it is to be taught.*
2. The content, grade placement, and sequence of teaching language skills are influenced by textbooks and teachers' manuals.
3. The content of language as well as curricular sequence is influenced by logical steps in the development of subject matter. This is influenced by the knowledge and perception of those who teach.
4. Test results are influencers of the content of language arts curriculum.
5. Integration of total language learnings with other areas of the curriculum is not prevalent.
6. Little articulation in the language arts exists from one level to another —from grade to grade, between the various phases of language, and between language skills and other daily activities.
7. There is little or no recognition or provision for individual differences among children when developing language, except in the area of reading.

### *An Approach: Practical and Practicable*

Regardless of language practices, problems, and needs in a school or in a classroom, *a practical-practicable approach* should be the number one concern in developing a language program. Since teachers long for such help, I offer some of the "must" ingredients:

1. *Listening, speaking, reading,* and *writing* must be taught and integrated functionally in all language materials. Materials used and experiences presented must include those which motivate and interest children, as well as those which have meaning for them.
2. Language skills must be taught and integrated in the sequence in which language develops. Children must be taught to listen to a particular skill, to talk about it, to read about it, and finally to use it in writing.
3. Language skills must be learned and integrated sequentially and progressively.
4. Once a language skill has been introduced, it must be maintained and integrated in many ways and settings.
5. Continuous assessment is essential to language development and integration and is as vital to the teacher as it is to the children.
6. Provision for individual differences must be constantly observed as language learnings are integrated.
7. Children must be provided with meaningful independent practice and drill in integrating language skills.
8. Grammar, usage, and the mechanics of language must be emphasized in integrated experiences.
9. Children must be creative listeners, speakers, and readers before becoming creative writers.
10. Integrating the language arts must not be confined to a language period.

## Explore the New—Preserve the Old

Do you approach helping boys and girls integrate language learnings practically and practicably? Are you familiar with the many ways of helping them use language? Are you satisfied with your approach to integrating the language arts? These are queries to which only you can react. In doing so, be mindful (1) that sound practice is based on research and (2) that just as you will need to explore "the new," you will need to preserve "the old."



52.

16.

Vol. 10, No.

# 3. Contributions of Summer Reading Programs

IRA E. AARON
University of Georgia

SUMMER READING programs of various types have been carried out in many places through the years. The program reported here is unique in that it enrolls primary age children and is specifically aimed toward curbing high school dropouts some eight to ten years in the future. The State of Georgia, through cooperative efforts of the State Department of Education, the public schools, and the University of Georgia, sponsored such a program during the summer of 1964 and will continue it in future years.

## The Program

Approximately 5,700 children were taught for seven weeks by more than 400 teachers. One hundred forty-two of the state's 195 school systems participated. Nearly one-half of the children were first graders, a little more than one-fourth second graders, one-fifth third graders, and the remainder non-graded primary or [illegible]

[illegible]

ers available. In most instances this was done.

A two-day briefing session was held for teachers just prior to the beginning of the instructional period. About a half-day was devoted to the research aspects of the program. During that time, tests to be administered and records to be kept were discussed. The remaining time was devoted to in-service work in reading. This highly-structured briefing session served to stimulate the teachers to put forth their best efforts in the program.

Teachers were employed for eight weeks during the months of June and July. The briefing session consumed the first two days. Teachers then had one day at home to get get ready for the children before they came. Next to the last day was used for bringing records up to date, and the final day was spent in district evaluation conferences. All other days were used for instruction.

Children attended classes for three hours in the morning, usually from 8:30 to 11:30, with a mid-morning rest period. The teacher used the afternoons for helping children who needed individual or very small group instruction and in preparation for the next day. A minimum of two hours was budgeted each afternoon for preparation and record keeping. Class size was held to a maximum of fifteen children.

Most teachers used basal readers in combination with experience stories, individualized reading, programed materials, or packaged kits. Some classrooms used basal readers, individualized reading, programed materials, or packaged kits exclusively.

[illegible]

6. Disabled in reading. (Children finishing first grade should have read at primer or lower level; pupils finishing second grade at low second or lower level; and children finishing the third grade at low third or lower level.)

Priority was given to children in first grade, then second, and finally third. Most children in the program were screened well, but a few good readers got into the classes, and, in a few instances, mentally retarded children were enrolled.

## Evaluation

Evaluation of the program was based both on objective and subjective data. Though a great amount of additional information was obtained on these children and their progress, only those results directly related to the effectiveness of the program will be cited here. Since the project is being reported in a session not devoted to detailed research findings, the findings cited will be in general and non-technical terms. The technical research reports will be published elsewhere.

Amount of gain during the seven weeks

53.

of instruction was assessed by "before" and "after" testings. Forms 1 and 2 of the Gates Primary Reading Tests were utilized with approximately 4,500 children, and forms 1 and 2 of the Gates Advanced Reading Tests were given to approximately 875 additional children whose reading levels were too advanced for the Gates Primary Reading Tests. All participants were administered carefully prepared "before" and "after" informal reading inventories as an additional way to assess change during the program.

to be quite satisfactory. The California Test of Mental Maturity indicated a median intelligence quotient in the lower part of the average range.

Teachers were asked at the end of the program to respond to a detailed questionnaire on the program. These are some of the conclusions that can be drawn from these questionnaires.

1. All except one of the 413 teachers thought the program should be continued.
2. Features which teachers liked best about the program were small groups of children and uninterrupted time for teaching reading.
3. The overwhelming majority of the teachers felt that children made at least as much progress as they expected. They cited "building of self confidence" and "foundation established" as major results.
4. Major reasons teachers cited for poor progress on the part of some pupils were "immaturity" and "lack of parental interest."

Parents, teachers, and pupils responded to a comparable seven-item rating scale about the program. All three rating groups indicated that they felt the program was successful and well worthwhile.

The data from last summer's program are still being treated for other aspects related to the program's evaluation. In addition, follow-up studies on sub-samples of these children are under way to see what happens the following year.

Is this program helping to stem dropouts from high school? Some years must pass before the answer can be given. However, many teachers have reported thus far that some children in last summer's program are back now on the regular

54.

17.

Vol. 9, 64

# 3. A Reading Program for Six-, Seven-, and Eight-Year-Olds

LORRAINE HARVILLA

IF CHILDREN are to develop a love for reading, understand the value of reading in their lives, and become avid readers, opportunity for reading must be provided. Books must be readily accessible; aid in coping with the intricacies of reading must be supplied when the need is at hand. Educators recognize individual differences in the ability to master the intricacies of learning to read, yet many follow practices directly opposed to this idea. Following a pre-movement program for reading [illegible] children may [illegible] the words. We should talk about ideas. Pictures can then become a means of developing a sight recognition vocabulary and learning necessary skills for unlocking unknown words.



Skills of reading are taught in a variety of ways. A sight recognition vocabulary might be developed by the use of words that are necessary and meaningful in the child's school life. At the beginning of the school year some patterns for self-discipline may be defined. Charts related to classroom conduct may be constructed. Another chart may define behavior existencies.

A sight recognition vocabulary is started with meaningful words. It is furthered through the technique of relating unknown words or portions of words to that which is already known.[1] From articles in *Education*: "Every school event provides an opportunity for providing [illegible] for [illegible] rather than [illegible]

[illegible] particular skill. This accomplished [illegible] returns to reading his private selection. It is also during conferences (group and/or individual) that an informal technique for diagnosing reading difficulties is valuable. Conference time provides a confidence time for you and the reader. You may page through the book together talking about interesting words, exciting incidents, pointing out "word pictures," selecting a portion of the story that is similar to something that has happened to the child or is like his family, his home, his friends. It's a very personal period for you, the reader and his book. Typical questions asked include: Would you like to have been the person in the story? Do you think he did the right thing? How would you have done it? Is there a place near here like the place in the story? Special effort is made to make the story a vital thing in the life of the child so that reading is a part of the world surrounding him.

At the close of the conference period the teacher circulates among the children to acquaint herself daily with the progress being made by the total class. While this is not a conference in the usual definition of the word it still constitutes a meeting with all so that each one has a sense of teacher contact, and the teacher is satisfied with the knowledge that she knows what all are doing.

The last part of the daily reading program frequently is a time for sharing books that have been read. [illegible] time you see a puppet show, [illegible] to the whole class an original [illegible] or [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[1]Lyman C. Hunt, "Individualized Reading: Teaching Skills," *Education*, May, 1961; "The Right Questions About Phonics," *Education*, May, 1962.

55.

18.

### b. Extending Reading Skills in a Large City School System

59. EDNA M. HORROCKS

The need for the development and extension of reading skills is a constant one in all school systems, but today, in the large city school systems of the country that need is a crucial one. The school picture in Cleveland, typical of that in other large cities, shows a steadily growing pupil enrollment (135,000) and a continuing elementary teacher shortage as well as a classroom shortage. These conditions combine to force many elementary classes into half-day sessions.

Among the pupils, naturally there is a great range of mental abilities, from a high of 180 I.Q. in Major Work Classes to a low of 56 I.Q. in Special Classes. Home backgrounds include large numbers of pupils from families who are culturally different and others who are culturally deprived. Although many of these children come from in-migrant families who are making difficult adjustments to big-city living, others come from stable, well-established homes. Under such conditions it is inevitable that there will be many pupils who will need extra help in reading skills.

#### Consideration of New Approaches

In a search for new avenues for extending reading skills beyond the established curriculum and beyond the scope of grades 1-6, the following three questions were considered:

1. Should the reading readiness program in the kindergarten be broadened to include more specific *reading* material?
2. Can pupils in the fifth and sixth grades be motivated to extend their reading skills and interests beyond the classroom?
3. Is there some way to ensure the continued teaching and use of reading skills in the junior high school?



#### Research on Success in First Grade Reading

In September of 1960 an examination was made of a study by Alice Nicholson[1] of the factors which contribute to success in first grade reading. The study involved more than 2,000 children and the conclusions reached concerning the background abilities relating to reading success were as follows:

1. Chronological age provides a most insecure basis for first-grade admission.
2. A knowledge of the *names* of letters provides the greatest assurance of learning to read. Tests which measure *association with name and form of letter* show the highest correlations with learning rate for words.
3. Mental age does not assure a high learning rate in beginning reading. Although children with very high mental ages have better letter knowledge, it is apparently the *letter knowledge* rather than the mental age which produces high learning rate.

#### Kindergarten Experiment

As a result of the examination of Nicholson's research project, an experiment on a small scale was initiated in Cleveland in September of 1960. All second semester kindergarten pupils at one school were divided into two classes, as comparable as possible as to ages. The teachers of both classes were excellent and experienced. The Control Group was given the usual Reading Readiness Program for Kindergarten. The Experimental Group was given a variety of activities designed to develop recognition of the *names* of the letters of the alphabet and the *sequence* of letters in the alphabet.

Activities such as the following were included. The Alphabet Song was taught and ABC books were shown, discussed, and placed on the children's book shelves for individual use. An alphabet of capital letters was placed on the wall to be used for matching and sequence. Magnetized letters were placed on a magnetic board with one child selecting a letter and his partner matching and naming it. The introduction of a Bingo type of game provided much opportunity for hearing letter names repeated. In a Bowling Game a bowler was expected to name the letters on the pins as he reset the pins he had knocked down. Later in the semester, the lower case letters were introduced and there was much matching and naming of the lower case and the capital letters on the flannelgram.

In December, both kindergarten groups were given the Lee-Clark Reading Readiness Test. The scores did not reveal any appreciable differences due to the fact that this test is based only on the *visual* discrimination of letters and words, but does not identify the letters by *name*.

In January, 1961, all the pupils in both groups were given individual, specially-constructed tests which were designed to test both the ability to determine not only the letter that *was different* in a line of four (E E F E) (b b d b) but also the ability to *name* the letters. Tabulated results indicated that the letters most likely to be confused were J, V, U, G, r, l, d-b, p-q, f-t, n-h, w-v, and u-n. Results also showed that the majority of pupils in the Experimental Group could successfully name the letters, whereas only those pupils in the Control Group who had received help from parents could identify the letters by name.

The only possible conclusion at this time with such a limited experiment is that *an average group of five-year-olds can successfully be taught the names and sequence of the letters of the alphabet within a normal kindergarten setting in an informal and interesting manner, by using a variety of visual and game situations.* This experiment will be expanded to include 20 kindergartens next semester and possibly all kindergartens the following year.

All children from the Experimental Group and those few from the Control Group who knew most of the letters were placed together in a first grade class. The teacher has been advised to omit the Reading Readiness Books and go directly into Reading Charts and Pre-Primers. During the first week of the new semester, the first grade teacher commented upon the keen interest shown by these children in using letters to spell and form words. The progress of these children in first-grade reading will continue to be studied during the next semester.

[1]Alice Nicholson, "Background Abilities Related to Reading Success in First Grade," *Journal of Education*, Boston University School of Education, Volume 140, February 1958, pp. 7-24.

56.

### Extending Reading Skills in the Middle Grades

For many years, in Cleveland, the reading program for the upper elementary grades was organized on the basis of group instruction, with reading ability being the basis for the formation of each group. The reading diet consisted of basal textbook reading, the reading of trade books by assigned chapters, and individual library book reading.

Consistent with the thinking of an evaluation committee that many types of grouping should be employed and that a variety of approaches to reading is stimulating, the *Whole Book Discussion* technique was evolved and added. The specific objectives of this type of reading were, first, *to foster a love of reading,* second, *to provide extensive and varied reading at individual rates of speed,* and third, *to promote group discussions led by pupils.*

This is the procedure that is followed. First, the children are permitted to browse through several sets of books. Each child then selects one book which looks interesting to him. Pupils are encouraged to examine the books closely enough to determine whether they can read and understand the vocabulary. If they are in doubt, they may talk it over with their teacher. However, if a child of average reading ability has a burning desire to be in the same group with his close friend, who is an excellent reader (and who also may be the captain of the baseball team), he is allowed to choose this group. His successful participation, or lack of it, as a member of that group will later determine —for him—whether he will choose to remain in that group. There are enough books in each set so that ten or twelve children may read the same book.

After making their selections, the children try to estimate the number of days—or weeks—it will take them to read the whole book. Then, together, they decide upon a reasonable date at which time they all will be ready to discuss the story. The teacher then presents to the group two or three questions which are designed to guide their thinking for the discussion of the whole book.

Each pupil reads his book at his own rate of speed. Also, each child determines when and where it is convenient for him to read, at school or at home. After the book has been read completely through for enjoyment, the child skims through the book again in order to clarify his thinking about the answers to questions which he will discuss with the other pupils. A few page numbers and key words are recorded on a study sheet for ready reference during the discussion period. On the appointed day, all the pupils who have read the same book come together for the purpose of sharing their thoughts about the story. A different child is the discussion leader for each book.

Typical questions that guide pupils' thinking are: 1. What proof can you find that Ma and Pa possessed ingenuity in solving many of their problems? (*The Long Winter*) 2. How did Mr. Stubbs prove to be both a help and a hindrance to Toby? (*Toby Tyler*) 3. What vivid descriptions of nature can you find in this story? (*Tornado Jones*) 4. What does the author mean when he says, "Might as well try to empty the ocean with a bucket"? (*Peachtree Island*)

The discussion of the Whole Book is a stimulating experience for our fifth and sixth grade pupils. The personal backgrounds, and experiences of the pupils color their contributions to the group discussion. They learn how to share their thinking and how to agree or disagree with objectivity; they discover the necessity of proving a point with page reference; but, most of all, they develop an affinity for books and a love for reading.

### Extending Reading Skills in the Junior High School

In his report on "The Junior High School Year," Dr. Conant says "that all pupils in grades 7 and 8 should be required to study English with a heavy emphasis on reading skills and composition." He places strong emphasis on reading because "the ability to read is imperative in secondary school." High on the list of prerequisites are teachers who combine real competence in subject matter with deep understanding of the psychological needs of this age group.

The needs for the revision of both the curriculum and of the methods of teaching reading in the junior high school are

common ones throughout the country, but again, the problems are particularly pressing in the big city schools.

In Cleveland, the opportunity for experimentation in this field came in June of 1960 with a grant of money from the Ford Foundation for the purpose of participating in the Great Cities-Grey Areas Program. More specifically, the grant was for a coordinated school-community team approach to improve the education of in-migrant pupils in a specified school district.

A junior high school with an enrollment of 2100 students and 81 teachers was selected for the experiment. The school draws its students from a heavily populated area with a density of 40,000 people per square mile. There is a high rate of transiency in this area and the population is made up of many heterogeneous groups.

While the in-migrant pupils were of major concern in the project it was soon recognized that a great number of the regular pupils in the school needed a continuation of work with the reading skills, and also, the junior high teachers needed assistance in learning the techniques for teaching those skills, particularly the word-attack skills.

From September, 1960, to January, 1961, two elementary reading teachers taught remedial reading to small groups of 7B pupils. The next step of acquainting junior high teachers with reading techniques was undertaken in February of 1961. The teachers voted to attend and participate in a series of twelve Saturday morning workshops for the purpose of upgrading their reading techniques. Methods for teaching the elementary word-attack skills are being presented by one of the elementary teachers who has had many years of experience in the Cleveland Reading Improvement Summer Program for elementary children. A junior high school teacher is working with the comprehension skills in the reading material of the various subject areas.

The activities which are being undertaken in this project are designed to improve ways of orienting in-migrant pupils to the city school program; to discover methods by which parents can become involved in their children's progress; and to upgrade methods of learning for both pupils and teachers. These are just the beginning steps of a possible three-year project in the junior high school.

The need for extending reading skills at all levels in a large city system will continue to exist, stressing this need automatically calls for more analysis of the ways in which pupils learn and more emphasis on improvement in the methods by which teachers teach.

19.

Vol. 10, 68

## 6. Well-Rounded Reading Experiences

420.

JACK W. HUMPHREY
Evansville Public Schools
Evansville, Indiana

READING is the most important subject in the Evansville-Vanderburgh School Corporation. The parents and educators of the community realize that any child who does not read up to his potential will be handicapped in school and post-school activities.

The reading center serves as a headquarters for the entire reading operation. At the center in-service training is conducted and clinical facilities are provided to aid children in overcoming extreme reading problems. A wide variety of materials is available to all teachers in the school corporation.

Several different kinds of in-service training sessions are held at the reading center. The most useful offering has been a class entitled The Diagnosis and Treatment of Reading Difficulties. The content of the course includes the use of group and individual reading and intelligence tests as well as familiarization with materials and techniques which may relieve problems previously diagnosed. The sessions are limited to fifteen teachers who are encouraged and trained to assume leadership roles in the reading programs of their schools. Other classes have been designed for principals, counselors, and teachers and include the use of new materials and methods and curriculum review.

Teachers are selected to do clinical work after they have completed in-service classes in the diagnosis and treatment of reading problems and have worked in remedial programs during the regular school year or in the summer reading program. Their work in the center lasts for one school year and includes testing and tutoring children, writing clinical reports, visiting the regular classrooms of the children, and interning during the latter part of the school year with teachers who have previously worked in the center and who have established outstanding developmental and remedial reading programs.

The reading center has thousands of workbooks and skillbooks which may be checked out at any time during the year to supplement the regular materials already in the schools. Books of high interest written at easy levels of difficulty are available on the same basis. Answer keys and printed sheets for children to use to write answers instead of consuming the booklets, materials developed by local teachers including recreational reading graphs, reading machines, and games are available to teachers at all grade levels. Several hundred sets of supplementary readers are also available in a traveling library.

The reading program begins in the kindergarten. A strong readiness program which includes the first readiness book of the adopted basal series is used at this level. Schools with large numbers of culturally disadvantaged children have established pre-primary classes where the 20-25 children with the lowest readiness backgrounds in kindergarten as determined by teacher judgment, group readiness tests, and individual tests are given

59.

an additional year of readiness activities which include many field trips and an emphasis on verbal activities.

The first, second, and third grades are vital in the total reading program. A basal series with all accompanying workbooks is available to all teachers. The program is supplemented with many materials as every teacher has been provided with all supplementary materials which go along with the basal series including big books, vocabulary cards, filmstrips, and phonics records. Many sets of supplementary readers are available in each school as well as in a traveling library. Other supplementary materials such as games, phonics records, and picture dictionaries are provided to all teachers.

In September, 1965, seven new series will be used in different schools at the first grade level. All workbooks, basal readers, and supplementary aids will be used for three years in preparation for the next textbook adoption. Teachers will report their experiences with the materials to the local reading council and later to book adoption committees.

In the intermediate and upper grades the adopted basal series is supplemented with multi-level materials such as the SRA reading laboratories. Teachers at these levels borrow many materials from the reading center or have them in the schools.

Libraries have been established in all elementary and high schools. Books are selected by committees of teachers and included in book buying guides. Committees from each school then select books according to their allotment which will be about two dollars per pupil next year. The books are purchased and fully processed at the center and then distributed to school libraries. Ten books per child should be in the school libraries, and it is hoped that this goal will be achieved in the next few years in all of the schools.

Remedial reading classes have been established in elementary schools to help children with special problems in learning to read. The teachers used in these classes have been trained in special in-service classes to diagnose reading problems and to plan programs to help pupils improve their reading skills. Tests, materials, and administrative forms are supplied to teachers from the reading center. Class sizes, selection of pupils, and the amount of time for remedial reading depends on the reading problems in each school. Some schools have full time remedial reading teachers while others have only one period per day for special help.

The high school program contains remedial, developmental, and literature classes. Pupils in the bottom eleven per cent of their eighth grade achievement tests are placed in remedial reading classes which can last from one to four semesters depending upon their progress. Pupils reading one or two grade levels below their grade placement are placed in companion literature books which are designed for high school pupils with limited reading skills.

All sophomores are given an intensive developmental reading course in reading rooms which are fully supplied with materials and equipment. Emphasis is placed on speed, comprehension, vocabulary development, and study skills.

Several different programs have been established for children in the summer. Elementary children can attend either remedial or developmental classes which meet for one hour each day for eight weeks. The class size is limited to fifteen pupils. The teachers used in the program are given special training in in-service sessions, and they are equipped with the materials needed to accomplish their tasks. Children in past summers have obtained statistically significant gains in the program, and follow-up tests administered eight school months after the conclusion of the program indicate that the gains are permanent.

Pupils in high school may take remedial or developmental classes during the summer. These classes last two hours each day for eight weeks. Materials used in the summer are not a duplication of those to be used in reading classes during the regular school year.

A summer television project financed by the U. S. Office of Education is now under way. During the summer of 1966 over 2,500 children just out of the first grade will take part in an eight week program which will be presented for one-half hour each day. The purpose of this study is to determine the effect of a summer television reading program on the reading achievement of children who have recently completed the first grade.



Auditions were held in March, 1965, and a television teacher has been selected. All children now in the first grade will be given reading and intelligence tests in May, 1965, and reading tests in September, 1965. These children will comprise the control group.

A workbook for the children to use with the program will be developed by primary teachers this summer. A course guide for the television teacher will also be developed.

In 1966 children in the first grade will receive the same tests as the control group. The television program will be introduced while the children are still in school. Workbooks will also be passed out at this time. The results of the testing will be analyzed to help determine whether or not the experiment has been successful.

Well-rounded reading experiences can be provided when full support is given in the community by the parents, educators, and school board members. The well-rounded experiences become possible when teachers are given in-service training and adequate materials. Such activities provided in regular, remedial, summer, clinical, and experimental programs from kindergarten through high school insure that a full reading program is available to all pupils.

60.

20.

Vol. 10, 65

## F. DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS

? 489.

### 1. A Principal Looks at Reading Instruction

HAROLD T. KARBAL
Detroit Public Schools

IS IT TRITE to repeat at this time that the principal is the instructional leader in the school? These days, so filled with questionnaires, forms, in-and-out baskets, and the like, paper work seems to hold sway. The conscientious principal, vitally interested and concerned with what goes on in the classroom, is hard pressed to find time and energy for what literally can be considered the essential part of the job. There are many facets to the task of having a worthwhile reading program.

#### From the General to the Specific

Reading manuals seem so adequate. Materials and curriculum guides from the central office are so good. It almost seems possible that the principal can concentrate his energies in other fields. Yet pronouncements such as these are not completely adequate when measured for a specific school. I took a look at the goals set up for one particular reading series which is widely used. As usual, goals were subdivided into skills, habits, attitudes and appreciations. There was little argument with any of them. There are few teachers, if any, who do not "develop skill in interpretation of story plot," for example. However, a little stirring took place as I read the following:

> To continue to develop the ability to read creatively by anticipating plot development, using personal experiences to interpret story situations, drawing conclusions, determining cause-and-effect relationships, seeing inferences and implications, and appreciating sensory impressions.[1]

This goal is certainly commonplace in most series of readers. Can it be extended to apply to all school settings in the same way? I think not. Manuals cannot possibly take into account the experiential background of the multitudinous children using the set of readers, the bias with which printed materials are approached, or the ease with which interpretations are made. To take an extreme, there are dis-

[2]Maria Montessori. *The Secret of Childhood.* London: Longman's, Green & Co., 1936.

[3]Newell C. Kephart. *The Slow Learner in the Classroom.* Columbus, Ohio: Chas. E. Merrill, 1960.

[1]David H. Russell and Odille Ousley. *Manual for Teaching the Second Reader—II.* Boston: Ginn and Company, 1964, p. 46.

61.

advantaged children to be found on all levels of society. The child living in the slums does not use the word apartment in the same sense that the child in another section of the city does. Apartment can conjure up images of "elevators, many floors, many families under one roof, attached playgrounds" as does the definition in one manual. To the disadvantaged child, the mental picture is much more apt to be many stairways, many floors, dark hallways, many families under one roof, no place to play, lots of noise. A suburban child may never have experienced an apartment at all or not one of more than two floors. High rise apartments are again a rather new phenomenon. All the definitions are hopefully multiple dwelling in nature, but what a difference in interpretation!

The point here is that somewhere along the line teachers must be helped to see that there is a difference in the way ordinary words look to children of varying backgrounds and to take account of this in their meaningful presentation of vocabulary. Many teachers teach with the manual in one hand.

### The Principal Helps Plan

This, I feel, is one place where the principal can help. By organizing study groups of teachers and encouraging them to apply their intimate knowledge of the children, a whole set of learning experiences can be evolved which will help children achieve goals set up at central sources. Only in such meetings can field trips naturally be planned, resource people suggested, classroom experiences be shared that will help make learning sequential rather than piecemeal. There is something about doing it together that helps make the process take place.

In one school we decided in such meetings that we had to do something about the following items in order to accomplish our reading goals:

1. Improve individualized reading
2. Increase experiential backgrounds
3. Appraise our phonics program
4. Improve listening skills
5. Enlighten parents, teachers, and children about reading
6. Evaluate more carefully the reading skills already learned

Under each of these topics we listed steps to be taken to do these very things which made sense to us. Another faculty in a different setting might easily come up with a completely different set of vexing problems to be studied.

### Changing Methods

Many new and challenging ideas are now being promoted in the field of reading. Along with the advent of non-grading, team teaching, and other organizational changes, propositions concerning reading in the kindergarten, individualized reading as against basal readers, linguistics, i/t/a, use of color, remedial reading techniques, the slow learner, the able learner, and other emphases fill professional literature. What is being said about the many facets of reading instruction is probably beyond the ability of a single teacher or principal to acquire. This is where the principal acts as liaison between those in the know and the faculty. It goes without saying that the principal must be well read himself. For example, the question of reading in the kindergarten cannot be answered adequately without knowing about the longitudinal studies made by Dolores Durkin on early readers.[2] New approaches in intercultural readers have to be examined to be appreciated. The City Schools Reading Program published by Follett and the New Basic Reading Program of Scott-Foresman are examples of this new trend. It is again the principal who must see to it that these books get into the hands of teachers.

It is likewise difficult in a large city system for individual teachers to contact supervisory staff for questions they have. Teachers are often reticent about doing this on their own anyhow. It is perfectly possible for a principal, however, to sense the need and to contact such specialists and invite them for staff meetings, discussions, and seminars.

### All Teachers Teach Reading

It is also the principal who can best help the faculty assume its responsibility as reading teacher no matter which subject is being taught. Too often lip service is given to this important concept. Have you seen the excellent article by Nila Banton Smith in a recent issue of *Educational Leadership* in which she points out the many reading skills required to be literate in the content areas?[3] Most classroom teachers will not be aware of this listing but will be glad to read it if you as principal give to them to read. Whether this is best done at a Teacher's Meeting or on an individual basis depends upon the personality and method of operation of the principal. It is a matter of getting things to the right people at the right time.

### The Public

The role of the principal as one of interpreter to the public is time honored. Parents want to know what is happening in the school. They, too, see the advertisements inducing them to purchase recordings and workbooks designed to aid in home remedial reading, to send for kits of flashcards to begin reading instruction at home, or to purchase teaching machines. They will naturally turn to the school for advice or approbation about what they think and do in this regard. Knowledgeable parents will wish to know whether test scores are on their way up, whether the reading program is a modern one, and whether the controversies they hear about are solvable.

Finally, it is the principal working with whatever resources are available to him who must help teachers regain and keep the self-confidence that Helen M. Robinson feels teachers have lost as a result of the belief that competence in reading is often equated with intellect, the realization that there is increasing pressure for earlier and better achievement in all academic areas, misunderstandings about the meaning of grade norms, and the best methods for beginning reading instruction.[4] Have these controversies truly shaken the self-confidence of teachers and left them uncertain as to how to proceed? Then principals have more to do than ever.

In summary, the principal is seen as a materials manager, grade or ungraded organizer, consultant, research and trends reviewer, evaluator, interpretor to the public. . . .

[2]Dolores Durkin. "A Fifth-Year Report on the Achievement of Early Readers," *The Elementary School Journal*, November 1964, pp. 76-80.

[3]Nila Banton Smith, "Reading in Subject Matter Fields," *Educational Leadership*, March 1965, pp. 382-385.

[4]Helen M. Robinson. "Teaching Reading Today," *The Instructor*, March 1965, pp. 56 ff.

Vol 9., 64

21.

## 2. Teaching One Million Johnnies to Read

JOHN B. KING



THE SUBJECT at hand, *Teaching One Million "Johnnies" to Read,* really breaks down into three phases—the first, we might call "Stock Taking," the second, "Benchmarks of Progress" and third, "A Look Ahead."

The reading problem in New York City is more or less typical of the challenge facing all of the large, complex urban communities throughout our country. Several of the more perplexing aspects of the problem are intensified here by the larger number and greater variety of people moving from the rural areas of our nation and from other lands into our enormous cosmopolitan center. Perhaps the most unusual characteristic of our seething metropolis is the heterogeneity of its eight million people so distributed as to create a city of cities. Its 850 public schools serve the children of the wealthy and of the poor, from the pockets of plenty along the Park Avenues and fringes of our city to the ghettoes and slums that house the poverty stricken twenty per cent of our citizenry. Into the public schools of our city, these children bring, in varying numbers, fifty-eight different language backgrounds and cultures along with the myriad of strengths and weaknesses that our society and economy has willed to them. It is to this vast polyglot, this most variegated heterogeneity that make up our public schools, that we must bring all the educational resources at our command, if these children are to become happy, wholesome, competent, contributing, responsible citizens of our great democracy. It is my sincere belief that, regardless of all other forces at work in our society, the effectiveness of the reading program is the greatest single determinant of their success and ours in achieving the kind of quality education so vital to the good life for the individual and the nation.

It was with this basic tenet in mind that we set out in 1960 to upgrade very substantially the teaching of reading in the elementary schools of New York City. The recent integration struggles and war on poverty in the nation and in the city have served to reaffirm and reemphasize our original feeling as to the urgent role of reading instruction in the growth and development both of our educational program and of our society. Our redetermination was born at the time of the frenzy created by the Russian Sputnik and the resultant drive for better education, by the sensation creating angry books attacking reading instruction, by the "Madison Avenue" promotion of so-called new methods, and by the spectacular revelations of research on the preparation of teachers to teach reading. All of these pointed up the need for a thorough reappraisal of our reading program—its assets, its liabilities and its ramifications unique to New York City. Out of this came a greatly intensified campaign, a drive for something more effective than what we had found in our reappraisal. The shibboleth, the watchword, the battle-cry of that campaign became, *Teaching Our 600,000 "Johnnies" To Read.* Teachers, supervisors, college personnel, parents, and retired members of the staff rallied to the cause which became one of the most stirring mobilizations of talent and commitment that I have witnessed during almost thirty-seven years of service in our city schools.

Among the touchstones in the emerging program for better reading instruction were seven basic principles or premises:

1. Reading must be viewed in terms of its broader implications, not as an exercise in word-calling, but rather, as an integral part of the thought and communication process, inseparable from the other language arts, and, therefore, an expression of the total personality.
2. The teaching of reading must be anchored to the basic philosophy of our elementary school program which is child-centered rather than subject-centered and which stresses teaching and learning through real, vital, dynamic meaningful experiences. Such learning must be sequential and always appropriate to the way children grow and develop. Teaching for such learning in the elementary schools must be unified and integrated, rooted in the Gestalt rather than behavioristic psychology.
3. Reading must be taught on both the elementary and secondary levels as part of a balanced curriculum provided to meet the total and varied needs, interests, and abilities of all our children. Such a balanced curriculum will change continuously to reflect the ever-changing demands of our democratic society.
4. Major emphasis must be placed on developmental rather than corrective reading on all levels. Reading skills, including phonics, must be developed systematically and sequentially

63.

from the earliest grades. Causes of reading disability are usually multiple and complex and must be identified and corrected as early as possible in the child's school life.

5. The direct route to improvement in reading is through improvement of supervision and instruction. We must, therefore, be committed to utilizing every possible means of improving the pre-service and on-the-job training of our teachers of reading. This means strengthening both the college program and the supervisory program.
6. In developing the reading program, we must utilize to the full, in school and out, the almost limitless rich and varied human and material resources of our great city. Carefully controlled research must be greatly expanded both to measure the effectiveness of methods, new and old, and to measure the effectiveness in utilization of resources, human and material.
7. Resolution of the problems of reading instruction must be undertaken with full recognition of—and appropriate measures to combat—the unique handicaps under which our New York City schools labor.

Now, before going into the specifics of the action program, I should like to refer briefly to some of the major factors that contribute to the low-level of reading achievement among the thousands of culturally disadvantaged children and youth in New York City. This we might think of as "Stock Taking."

1. Staff shortages and rapid staff turn-over. More than 3,000 replacements each year in elementary schools—most of these in minority group areas.
2. Inadequate pre-service and on-the-job training of teachers and supervisors necessary for effective teaching of reading to children difficult to teach.
3. Vast numbers of pupils receiving short-time instruction on all levels with all pupils receiving four hours instruction or less in first year. Approximately thirty thousand pupils on short-time in grades 2-6—largely concentrated in the critical early grades.
4. Excessive school-to-school mobility of pupil population. Many schools about 100 per cent turn-over each year, usually in minority group areas.
5. Tremendous and steady increases of economically and culturally-disadvantaged, under-educated and under-motivated pupils from outside the city. The South, Puerto Rico, and more recently, Cuba and China—shift of middle class to suburbs.
6. Failure to meet the urgent need of many pupils for kindergarten and pre-kindergarten instruction in culturally disadvantaged areas.
7. Unusual distribution of New York City pupils on the normal probability curve of academic ability, i.e., many more pupils in upper and lower academic levels and fewer than normal in the middle group.
8. Extremely varied ethnic and language background which creates many instructional problems in New York City unknown or little known in "homogenized suburbia" where homogeneity is the watchword in school and out. Approximately one out of five pupils in elementary schools is of Puerto Rican background and Negroes comprise almost one-third of the elementary school population.
9. Tens of thousands of illiterate adults from outside, including many school dropouts, and many unemployable parents settle in our city each year. Estimates indicate that there are 500,000 illiterate adults in New York City at any one time, with about 42,000 on the welfare rolls.
10. Unavailability of reading materials oriented to interests and needs of pupils of varying backgrounds in a large urban community.
11. Inadequacy of definitive research on best methods of teaching reading to culturally deprived and reluctant learners on all levels.
12. Ever increasing need for special personnel, clinical, guidance and other services, instructional ma-

terials and techniques for growing numbers of physically, mentally, socially, and emotionally handicapped pupils. Good special education programs inevitably reach more and more children and youth.

13. Special problems related to measuring intelligence, learning potential and reading growth among culturally disadvantaged.
14. Assets and liabilities growing out of current educational trends and practices, e.g., collective bargaining, school integration, team teaching, campus schools, programed instruction, manpower retraining programs conducted by Board of Education, as well as, "outside" agencies and organizations.
15. Problems growing out of budgetary limitations. Operating Budget for 1963-1964 was more than $800,000,000 with the city providing about $566,000,000 and the state about $265,000,000. The per capita allotment in elementary schools is less than $700, and the needs exceed $1000.

Now, let us consider a few "Benchmarks of Progress" in each of six primary spearheads in our action program.

1. TEACHER AND SUPERVISORY GROWTH
   - 1.1 Pre-Service—
     - Reading Academy
     - Campus Schools
     - Manuals and Teaching Guides being developed jointly by school and college personnel
   - 1.2 On-the-job Training—
     - District and local school programs to promote supervisor and teacher growth
     - In-service Courses and TV Workshops
     - Bulletins and Teaching Guides, Films
     - City-wide exhibits, conferences and workshops
   - 1.3 Experimentation and Research—
     - Team Teaching
     - Programed Instruction
     - 5 hour first year
     - Hold-over Study
     - S.R.A. materials
     - Phono-visual technique
     - Initial Teaching Alphabet
     - Reading films
2. EXPANSION IN PERSONNEL AND SERVICES
   - 2.1 Corrective Reading Teachers
   - 2.2 Reading Improvement Teachers
   - 2.3 Librarians in elementary schools
   - 2.4 Specialists in music, science, art, health education in elementary schools will raise teaching skills in other areas and provide time for diagnosis, record keeping, planning and preparing instructional materials.
   - 2.5 Establishment of After School Study Centers on all levels for remedial work, homework clinic, and school library.
   - 2.6 Provision of school aides and additional school secretaries to reduce non-teaching chores and allow more time for teachers to teach.
   - 2.7 Additional reading clinics have been set up to handle special problems.
   - 2.8 Additional Junior Guidance Classes to care for disturbed children.
   - 2.9 Additional guidance counselors provided in elementary schools.
   - 2.10 Reduction in class size.
3. MORE AND BETTER READING MATERIALS ARE BEING PROVIDED
   - 3.1 Publishers providing urban oriented books and materials keyed to needs of culturally disadvantaged.
   - 3.2 Books better constructed to develop vocabulary, word-attack and other skills.
   - 3.3 Expansion in school libraries.
4. MORE AND BETTER TEACHING AIDS, CURRICULUM BULLETINS, TEACHING GUIDES ARE BEING DEVELOPED
   - 4.1 Skills sequence brochure now being tried out in elementary schools.
   - 4.2 Cumulative reading record card now being tried out as a means of combating excessive pupil-mobility and staff turnover.
   - 4.3 Handbook on supervision of reading (in process).
   - 4.4 New K-12 reading program be-

65.

ing developed.

5. STRENGTHENING OF HOME-SCHOOL-COMMUNITY COOPERATION
   - 5.1 Operation Emeritus (retired teachers and supervisors)—Developed film "Parent's Role in Reading" as basis for school and district programs.
   - 5.2 Basic education, job training and retraining programs being vastly expanded for drop-outs, potential drop-outs, unemployed and underemployed youth and adults.
   - 5.3 Joint programs with public library, settlement houses, foundations, federally sponsored projects like Mobilization for Youth, Haryou, etc.
6. VAST BUILDING PROGRAM IS PROVIDING MORE LEARNING TIME AND MORE EFFECTIVE USE OF TEACHING TIME
   - 6.1 Reduction in short-time instruction.
   - 6.2 Extension of first year to 5 hour day.
   - 6.3 Possible extension of Kindergarten to full 5 hour day.
   - 6.4 Creation of a more efficient school plant and a more wholesome school climate necessary for optimum teaching and learning.

And now, what do we see ahead in our program to teach one million "Johnnies" to read? For the "Look Ahead," I should like to just restate some highlights from the brilliant paper presented by Assistant Superintendent Helene M. Lloyd at the last session of the American Association of School Administrators. Mrs. Lloyd is widely known as the greatest single contributor to New York City's program for the improvement of reading. On that occasion, Superintendent Lloyd said, "In our all-out assault on the problem in New York City, the greatest promise of progress seems to be offered by eight avenues." She suggested these avenues:

*Avenue 1: New types of tests will be developed to give a more valid picture of the disadvantaged child's capacity to learn to read.* We must rapidly replace our present group intelligence and reading readiness tests with measuring rods that do not militate against the disadvantaged and, at the same time, give a true picture about the abilities and needs of all the other children in our schools.

A start in this direction has been made by New York City Schools. We are developing, in cooperation with the Educational Testing Service, a new type test for use with our first grade children next year in lieu of the group intelligence test. If the new type test proves successful in grade one, similar tests will then be developed for upper grade levels. The New York City reading readiness test is also undergoing revision to take into account the affirmative assets of the socially disadvantaged.

*Avenue 2: All-out efforts will be made in the years ahead to encourage earlier language development and to build necessary concepts.* We know that language patterns are firmly implanted by the time a child is six years old. Therefore, the socially disadvantaged child *must* have our help with language and concept development *in the pre-school years.* This means that school systems in urban areas will have increasing numbers of nursery schools, summer playschools for preschool children, workshops for their parents.

*Avenue 3: The development of urban-oriented materials will be accelerated.* This reading material must not be today's material with a few new stories, a few new words, or a few new photographs added. This material must be largely new, growing out of the interests, vocabulary, and experiences of *every* type of city child including the socially disadvantaged. The material will include more than a series of basal readers; it will include a full and powerful gamut of skill kits, tapes, recordings, filmstrips, packaged materials, programed materials.

*Avenue 4: The pre-service and in-service education of teachers in the area of reading will be improved.* Today's drive for improvement in the quality of reading instruction, the need for which was underscored by the results reported in Mary Austin's book, *The First "R,"* will continue with increased momentum in the years just ahead. Let me stress the words *with increased momentum.*

We know the classroom teacher is the

*socially disadvantaged children.*

In closing then, let me say, the future looks bright indeed in the vitally important business of teaching our one million "Johnnies" to read. Obviously the task is one of truly awesome proportions, determining the very lives of our children, and perhaps, the very survival of our nation. I feel hopeful of the reading future for New York City because so many people, teachers, supervisors, college personnel and parents are attacking the problem with full vigor and unabating determination. We all know so well that we cannot, we must not, we dare not fail our one million "Johnnies."



key factor in any reading improvement program. In teaching reading to the socially disadvantaged, this teacher must not only be a skilled reading technician, but also must have an understanding of and respect for varying cultural and ethnic groups as well as a sound background in mental hygiene and child guidance.

In urban centers, televised courses in the teaching of reading, with emphasis on mental hygiene and human relations, will be expanded and become a standard part of both in-service and pre-service training. These television courses, however, cannot be the *main* answer. Teachers and teacher trainees must get *guided experience* in teaching reading to children under the direction of highly qualified reading specialists.

On the in-service level, the teacher will obtain highly qualified guidance in three ways:

*First,* and foremost, from his supervisor who, because of certification requirements or because of professional interest and need will increase his skill as a reading technician. This increased skill in the teaching of reading will be necessary because of the ever-increasing leadership role of the supervisor in developing a quality reading program. The increased ability in reading will also be necessary because the supervisor will be and must be held directly accountable to the Board of Education and to parents for each child's progress in reading *regardless* of the number of reading specialists in the school.

*Second,* the teacher will receive help from a special teacher of reading assigned to his school to assist in the improvement of reading instruction.

*Third,* the teacher will receive help from college specialists working in and with the public schools.

*Avenue 5: There will be an increase in the quality and the quantity of the special personnel provided for upgrading reading in schools in disadvantaged areas.* Let us consider just a few of these special personnel.

*First, Speech Specialists.* We shall see within the next few years a new utilization of speech specialists in all schools in disadvantaged areas. We know that there is a close relation between speech problems and reading problems. The relation is such that one cannot readily solve the reading problem without first solving the speech problem.

*Second, Teachers of Library.* We foresee the day when the library will serve as the coordinating hub of every elementary school's reading program. The Teacher of Library will not only perform all the usual librarian services, but will also maintain a rotating flow of books from the library to each classroom.

*Third, Reading Clinics.* To meet the needs of the retarded reader who is emotionally disturbed, we will need more reading clinics in disadvantaged areas. From these areas particularly come children with grave, deep-seated problems that can be resolved only by the clinic team. Included in this team are the following: a reading counselor, speech therapist, social worker, psychologist and when needed, the psychiatrist.

*Avenue 6: The reading program will be stabilized, particularly in disadvantaged areas, by the use of adequate reading records.* A basic characteristic of children in socially-disadvantaged areas is the excessive mobility of their families.

Because some type of reading record card is a *must,* especially for those children who live on wheels, staffs in our urban centers must develop, as quickly as possible, a type of Reading Record Card to fit the needs of the children and school staff.

*Avenue 7: We will focus on more and improved research studies particularly in beginning reading for all children, with special emphasis on disadvantaged.* Before making any drastic changes in our first-grade reading programs, because of pressures from those who believe in more phonics, we would be wise to wait until the fall of 1965 when the results from this nation-wide focus on first-grade reading can be carefully analyzed in light of implications for our own school systems. After taking a hard look at these research results, we would be in a far sounder position to take appropriate action.

*Avenue 8: We will find means to stretch the school day and school year to provide the required reading instruction time for*

22.

## 2. Initiating a Developmental Reading Program in High School

42.

JAN LUCAR
Caddo Parish Schools

OUR SCHOOL SYSTEM, for the most part, follows the advice of Alexander Pope: "Be not the first by whom the new are tried, nor yet the last to lay the old aside." Experimentation is the customary policy which precedes the introduction of anything new to the curriculum. This is a secure and comfortable procedure for the personnel working on the instructional staff in any large school system.

Even though the need for reading instruction in the high school area is felt nationally, and is part of the curriculum in many secondary schools, our school system laid careful ground work before reading was added to our curriculum. Many problems presented themselves for solution, and not all have yet been solved. Not the least of these problems has been in-service training for high school teachers who have had no experience in the teaching of reading.

### Background

It will be helpful to present some background of the reading program that has been in effect in our parish for a number of years. In Louisiana, schools are operated on a parish wide basis; we have sixty-four parish systems and there are three city school systems. A parish in Louisiana is the civil division equivalent to a county in other states.

A developmental reading program has been in effect in Caddo Parish in grades one through six for many years and with the employment of two reading specialists in 1964, the school board prepared to extend the reading program to include grades seven and eight.

This reading program has been in effect during this school year, the basal program is used in these grades in a regular classroom environment. Provision was made also for remedial reading classes in grades nine through twelve. Basal readers are used throughout this entire reading program, and the Informal Reading Inventory is given for the purpose of grouping.

### Experimental Reading Class

Personnel on the instructional staff, responsible for the reading program, felt that high school remedial reading classes could be taught by English teachers already employed in the schools if basals, manuals, and accompanying workbooks were used. With some in-service training by the reading specialist assigned to sec-

ondary schools, it should be possible for untrained teachers to follow the manual of a basal series and to teach the essential reading skills.

Many of these high school English teachers objected to the use of elementary basals in the high school area. They proclaimed that the high school pupil would not read these stories that he had "read" in elementary school. It developed that this was the idea of the teacher—not the pupil. Therefore, the reading specialist decided to teach a group of high school pupils for a period of six weeks, using a basal series, to determine what would happen.

The reading specialist made plans with the principal and administrators of one high school for the formation of an experimental reading class. The principal and administrators chose fourteen pupils to participate in the reading experiment. It was necessary to take these pupils out of their regular classes each day from 11:45 to 1:00 to participate in this experiment.

The fourteen prospective participants were administered the Informal Reading Inventory and the *California Reading Test,* form X. The scores of five of the prospective participants showed that they were already reading at grade level, or above, so it was decided that these five would not be compatible with the proposed experiment nor with the other participants. They were, therefore, sent back to their respective classes and did not take part in the reading experiment.

Using all test scores as a basis, nine pupils were admitted to the experimental reading class and were placed in instructional groups; seven were placed in a sixth grade reading group, and two in a fourth grade group.

The method of instruction employed with this experimental group was the developmental reading procedure using a well-known basal series and its accompanying manuals and workbooks. Library books at third, fourth, fifth, and sixth grade reading levels were provided for use when the assigned class work was completed.

Dolch Basic Sight Vocabulary Flash Cards were also used with the two boys in the fourth grade reader. After some help, these boys were able to use the flash cards without aid from the instructor.

The class continued for a period of six weeks, with uninterrupted instruction. At the end of the six-week period the *California Reading Test,* form W, was administered. Scores from the first and last test appear in the table below, along with instructional level from the administration of the Informal Reading Inventory.

| | | California Test X | | | | | California Test W | | | | | IRI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pupil | I.Q. | Voc. | Gr. Pl. | Comp. | Gr. Pl. | T G.P. | Voc. | Gr. Pl. | Comp. | Gr. Pl. | T G.P. | Inst. Level |
| 1 | 123 | 20 | 8.4 | 35 | 9.0 | 9.0 | 30 | 10.7 | 40 | 10.0 | 10.5 | 6 |
| 2 | 86 | 11 | 6.3 | 23 | 7.4 | 6.9 | 13 | 6.8 | 37 | 9.3 | 8.5 | 6 |
| 3 | 89 | 18 | 8.0 | 33 | 8.7 | 8.6 | 25 | 9.6 | 34 | 8.9 | 9.4 | 6 |
| 4 | 91 | 13 | 6.8 | 31 | 8.4 | 7.9 | 23 | 9.1 | 26 | 7.8 | 8.4 | 6 |
| 5 | 85 | 16 | 7.5 | 24 | 7.6 | 7.5 | 18 | 8.0 | 32 | 8.6 | 8.5 | 6 |
| 6 | 92 | 14 | 7.0 | 26 | 7.8 | 7.5 | 17 | 7.7 | 21 | 7.2 | 7.3 | 6 |
| 7 | 90 | 14 | 7.0 | 24 | 7.6 | 7.3 | 10 | 6.1 | 38 | 9.5 | 8.3 | 6 |
| 8 | 74 | 16 | 7.5 | 21 | 7.2 | 7.2 | 15 | 7.3 | 26 | 7.8 | 7.6 | 4 |
| 9 | 80 | 6 | 6.0 | 7 | 6.0 | 6.0 | 11 | 6.3 | 15 | 6.5 | 6.0 | 4 |

A comparison of test scores from the two tests given offer proof that most of the members of the reading group made progress during this concentrated period of instruction.

On the first day of actual instruction, when the basals were introduced, some of the pupils indicated they had read the books in the fourth or sixth grade. Three different basal series are used in elemen-

69.

44.

tary schools, so it was true that some had seen the books used in this experimental group and some had not. The general purpose of this experimental class was explained to them, and from this time on they gave their full cooperation to the instructor. The participants did not, at any time, offer resistance to reading either the stories in the basals or the library books. In fact, they seemed interested in both and pleased that they could read them with ease.

At the conclusion of the experiment, and following a conference with the principal and administrator of the school, the reading specialist felt that it could be safely assumed that a classroom teacher who grouped pupils within their own reading levels, and who used basal texts and manuals as intended, could almost certainly provide adequate, progressive instruction in high school for the below grade level reader.

At the present time, in four high schools in this parish, there are ten reading classes for the below grade level readers. Teachers are now being trained for added classes in the fall of 1966, and the new term will begin with a total of at least fifteen classes.

### In-Service for all English Teachers

Concurrent with the initiation of classes in the high schools for below grade level readers, in-service meetings were held with English teachers to introduce techniques and methods for teaching reading and literature in regular English classes. It was demonstrated to these English teachers how all pupils could be helped by putting on the board some of the more difficult words from a story or play, by giving some background of the story, and by writing on the board a few questions to set the purpose for reading.

It was further demonstrated how reading skills, in the comprehension area especially, could be taught after the silent reading, through discussion of the story. The teachers were encouraged to strengthen word skill by actually using previously introduced vocabulary for word analysis.

English teachers are still being encouraged to do these things through faculty meetings, small in-service groups, an annual pre-school reading workshop, and a parish wide reading in-service program during the school year.

### Individual Differences

A workshop was held this spring for English teachers, and one meeting was devoted to meeting the challenge of individual differences in all classes. Unfortunately, some pupils in regular English classes are unable to read the books on the list distributed by the teacher, usually in the fall, as a list of required reading for the course. Therefore, it was suggested to these teachers that they give different lists to the below grade level readers, listing titles the pupils would be capable of reading. The school librarian is an excellent resource person to aid teachers in preparing individualized reading lists.

In this spring workshop, English teachers were urged to give individual assignments commensurate with the capabilities of the pupils. This procedure would not necessarily involve twenty or thirty different assignments, but usually could be grouped into three or four.

### Reading in Content Subjects

Too often, because every teacher is considered a teacher of reading, no teacher actually teaches reading in the specialized subjects. Reading in the content field offers a challenge, and consultants in specialized subjects are frequently called in to work in our parish with staff members, principals, and teachers. Those responsible for reading in the secondary schools feel that the success of the total reading program depends upon the inclusion of reading in specialized areas. *Every* high school pupil should be given reading instruction.

It is necessary to help all secondary pupils reenforce and strengthen reading skills. They also need help with study skills. A great deal of material has been distributed to help not only teachers of English, but teachers of all specialized subjects, in order that they may teach all secondary pupils how to use reading and study skills. For instance, many of our parish teachers were introduced this year, for the first time, to the *SQ3R* method of study. Ground work has already been laid, through conferences with principals of high schools in Caddo Parish, to initiate special reading activities in all senior classes for the college bound student. A large percentage of the students in this parish system are college bound and they need techniques in reading to aid rate, critical reading, and some word study.

45.

### Summary

The school system discussed in this paper has been in the process of initiating a developmental reading program. While much progress has been made, certainly the program leaves much to be desired. Experimentation has been, and will continue to be, the basis for introducing new methods, techniques, and materials into the curriculum.

The basal reading program in grades one through eight, with correctional reading classes in high schools, has been successful and will be expanded next year in the high school area. In-service programs, workshops, and small faculty group meetings already instituted have brought new concepts to teachers and all of these in-service institutes are to be continued and expanded in the future.

A complete developmental reading program cannot be achieved overnight, but is a continuous, on-going program that requires constant experimentation, research, and upgrading. This school system has made a good start, has achieved reasonable success, and will continue in an attempt to solve the pressing problems in the field of reading.

70.

23.

Vol. 7, 62



## 28. The Big City Story—San Francisco

ISADORE PIVNICK

Educators have taken a new look at culturally handicapped children and their needs. Something is being done in San Francisco about this look which revealed that children residing in certain areas need special attention. Since February 1961 a three-year grant from the Ford Foundation Fund for the Advancement of Education has enabled the school district to provide personnel, material, and equipment to carry on a special pilot project in a "culturally deprived area." This project, known as S.C.I.P. (School-Community Improvement Program), has as its major emphasis strengthening of reading and language skills, as well as attention to closer relations with neighborhood and parents, and help in getting jobs and college placement for youth.

The project is centered in an area known as the Western Addition. There is high density of population, living standards are inferior due to low economic status, family patterns are disoriented, and socially unacceptable behavior is common. Mobility of population in this area is high. Redevelopment of the area is currently under way.

Two elementary schools, one junior high, and three high schools are involved in the project. The elementary schools feed into the junior high and it in turn sends pupils to the three high schools. Approximately 3500 pupils are involved. Only twelve additional staff members have been assigned to work with the existing staffs.

The project teachers assist by teaching small groups, demonstrating good teaching techniques, preparing materials for teachers, and seeking new methods and materials for use by children who are "educationally retarded."

Each of the three teachers who work with the two elementary schools concentrates on a particular grade level, i.e., 1-2, 3-4 and 5-6. Methods, materials, and equipment are tried with children in small groups. Then, through coffee klatches, organized and informal meetings, demonstrations, and descriptive bulletins, information is shared with the regular staff. In this way the effects of the project teachers' efforts are felt in every classroom. A great deal of emphasis is placed on the language and experience approach to reading.

Two teachers serve in the junior high as members of the S.C.I.P. team. They teach reading two periods a day and then carry on activities that insure articulation in the project classes, serve as consultants, and act as resource teachers to other teachers in the school.

In addition to these "above formula" teachers, five members of the regular staff serve children enrolled in the project classes. They teach four periods and have one conference period per day. During the conference periods the teachers "team-up" for discussions about teaching techniques, problems, or preparation of materials.

It has been interesting to observe what has happened to the teachers and children. When the mathematics teacher found it difficult to teach members of his class because they could not read the arithmetic texts, he discussed his problem with the English teacher. Working together, they hit upon a solution. The teacher of English provided time in his class for the pupils to define the arithmetic terms. The mathematics teacher followed this by encouraging discussion of the vocabulary in the classroom. Concept building and understanding of terms became an integral part of the mathematics class. Pupils are proud of their newly gained ability to attack words, spell them, and use them with meaning.

"Each one teach one" is another approach which has proved highly successful. A flexible "pairing-off" system has been established so that pupils who have strengths in certain areas help those with weaknesses. This has increased incentive for the pupil and has provided more time for the teacher to work with other individuals.

Similar approaches have found their way into other classes. Development of vocabulary at the chalkboard, use of sketches and drawings to elicit responses, and interesting and purposeful discussions by the pupils are included as an integral part of each subject. These positive steps

71.

in improving attitude toward reading as well as ability to read better are evident in the classrooms.

Other features of the junior high program are:

1. Classroom enrollment is limited to 24 pupils.
2. Pupils are placed in the program if they have an IQ score of 85 to 100 and show a reading retardation of approximately two years. (This is based upon group test scores and teacher judgment.)
3. Multilevel teaching materials are used. These include textbooks, SRA Kits, workbooks, charts, filmstrips, games and duplicated materials.
4. Machines are being tried with reluctant as well as rapid readers in the English classes. These include tachistoscope, controlled reader, tape recorder, listening centers, individual previewers and reading accelerators.

Each of the three high schools has one special teacher assigned to teach two reading classes and one laboratory class daily. In addition they serve as coordinators of the special reading programs. During free periods they evaluate materials, prepare bulletins, write lesson plans, counsel children, and work with other teachers.

Tenth grade students in two of the high schools take reading classes in addition to the regular English courses. Reading and driver education share the students' time. Teachers of subjects other than English are also invited to teach the reading classes. In-service at-the-site is conducted for teachers who volunteer to work in the program. Screening takes place so that follow-up work can be done with students requiring further help.

In the third high school the pupils are screened during the low ten semester in the regular English classes. Pupils are recommended to the project teacher for further tests and interviews. Then, those who require additional help are placed in special reading laboratories taught by the project teacher and one other teacher of reading.

Teachers and librarians have commented on the improvement noted and changes in selection of books for personal reading. In addition the voluntary, before school classes are well attended.

All pupils in the program have been given mental and achievement tests. They are re-tested periodically. At the end of two years an evaluation will be prepared using test results plus other subjective information.

Although we are attacking the reading problem we recognize that reading disability is just a symptom. We are aware of some of the causes and we are trying to do something about them. Image building, motivation, and cultural enrichment are a vital part of the approach. For the older students job opportunities and scholarship possibilities give reason to improve.

Field trips to nearby TV studios and return visits to the school by studio personnel has increased interest in news broadcasting. A visit to one of the local newspaper plants to observe how a newspaper is prepared met with real delight. Each week the class receives free newspapers which they use in their daily program. One group of children visited their teacher's ranch. The trip over the bridge was a "first" for many. A recording of the "oh's" and "ah's" which came forth from the youngsters as they held sheep and chickens and collected eggs was proof of their enjoyment. A chance to learn about the opera "Rigoletto" and then see it was afforded several pupils in the elementary schools. Arrangements were made for several hundred pupils to attend the symphony. These real experiences lead to excellent discussions and opportunities for reading and recording.

Another service which has proved very valuable and which has been well received is home visiting. At the elementary level the project teachers visit the homes of their pupils. In some cases the regular staff members also go along. A counselor is assigned to work with the teachers at the junior and senior high levels. The visits to homes have helped the teachers become even more understanding and at the same time have helped the parents.

The community counselor has been kept busy securing sites for study centers and personnel to supervise them. Centers have been established in six neighborhood buildings, including recreational and church facilities. College students have volunteered their services. Students from the junior and senior high schools have been informed of the facilities and many have already taken advantage of the opportunity to study in quiet surroundings with competent help available. In addition, two centers are available to elementary students. Information on loan funds and scholarships has been sought and publicized.

Finally, jobs for youth poses a serious problem. The project's vocational counselor has prepared material on how to get a job, requirements which must be fulfilled if a job is to be secured, and has opened doors to more employment for youth. An active program has been initiated in order to acquaint both the school and the "world of work" of the needs of youth. Vocational Guidance Workshops which have been held in the community have been well received.

This is the *new look* in the Big City. Should *you* take time to look you will see happy, interested, motivated children. But let's not forget the parents and teachers. They, too, see the benefits of this effort on behalf of children.

24.

of its history. There has been a trend towards industrialization, however, and a few years ago a large industrial plant was established in the vicinity. Wishing to become active participants in community life and community affairs, the plant management met with local community leaders and school officials and offered financial assistance for a program of school improvement.

As a first step in this program the School of Education of Auburn University was asked to make a comprehensive survey of the entire school system and to make recommendations with respect to organization, administration, personnel, finances, school facilities, and the educational program. This school survey was completed in 1962 and the findings and recommendations were compiled into a report. Much of the following data concerning the school system is based upon that report.

In 1962 the county had twenty-three schools with 174 teachers and 4907 pupils. The potential for pupils to remain in school through the twelfth grade was found to be approximately half the national potential. This high rate of dropouts possibly might explain why the county welfare budget was larger than the budget for education. Median family income and average personal income in the county were both less than half the national figures.

Most of the college training of the teachers had been received at a single institution—a nearby state teacher's college. An analysis of the professional qualifications of teachers revealed that more than half had not taken any college work in the previous five years, many had not been back to college within the previous ten years, and the most recent college credits of a few teachers had been received twenty years prior to the time of the survey.

Teaching and learning resources in all schools were found to be inadequate. There was a critical shortage of reference books, dictionaries, and supplementary reading materials. Library facilities were extremely limited or non-existent. A survey of teacher attitudes revealed that more than two-thirds of the teachers felt that reading instruction in the schools was inadequate.

Vol. 10, 1965

## 2. Reading Improvement in a Rural Community

261.

EDGAR L. ROUGHTON
Auburn University

THIS IS the story of what one school system has done to improve its reading program. The school system is located in a county which has been principally an agricultural community throughout most

Pupils in grades three, seven, and twelve were administered educational achievement tests as a part of the survey. Total reading achievement of third-grade pupils was below the national norms; the average scores in reading comprehension were more than half a year lower than the norms. Third-grade pupils in small rural schools were eight months retarded in vocabulary and were behind in reading comprehension by more than a year.

The average scores of seventh-grade pupils were found to be two and one-half years below the norms on vocabulary and two years and eight months below on reading comprehension. This meant that the average pupil entering the eighth grade the following September would be able to read little better than most fifth-grade pupils in the United States. The testing program also revealed that the twelfth-grade students in this school system ranked in the bottom fourth of the nation in reading achievement.

The results of this survey led to a decision to launch an extensive five-year school improvement program. Since reading had been shown to be such a critically serious problem, high priority was given to the immediate development of a reading improvement program. This program will be discussed in three phases: an initial phase in which the objectives were to awaken community interest in reading and to secure the cooperation of both teachers and administrators in working together to improve all areas of reading in the schools; an interim phase which was a period of self-examination and experimentation with new materials and new techniques for reading instruction; and a final stage in which a comprehensive and coordinated program of reading improvement would be established on a system-wide basis.

In the initial phase of the program a college course in the fundamentals of reading was offered for graduate credit in the local community. This course was open to all school personnel regardless of previous background in reading or lack of such experience. Administrators and high school mathematics and science teachers were enrolled along with elementary teachers, librarians, and high school English teachers. The class was conducted as a workshop and included examination and demonstration of new materials, as well as discussion of the principles of good reading instruction. Classrooms were visited and demonstration reading lessons were taught. New organization plans designed to facilitate improved reading instruction were discussed. Different methods of grouping and new approaches such as individualized reading and the language-experience approach were studied. The relationship of reading to all areas of the curriculum was stressed. During this initial phase of the program a professional library for teachers was established and stocked with an adequate number of new books on all phases of reading.

The second phase of the project was characterized by definite steps on the part of both administrators and teachers to improve reading instruction. First grade teachers began experimenting with reading readiness programs and a modified Joplin plan of organization for reading instruction was installed in one elementary school. Another college course in diagnostic and remedial reading techniques was offered. A remedial reading class was established in the largest high school. This class was composed of twenty high school students whose reading level was second grade or below. Systematic instruction in basic word recognition was given this group. Supplementary reading material of the high-interest low-vocabulary type was provided for them. Only one student of the original twenty has dropped out of school which is rather remarkable in view of a recent study which indicated that more than half of all school drop-outs were retarded two or more years in reading.

The final phase of the reading improvement program will include preparation of a course of study for the teaching of reading at all grade levels. Committees of teachers will identify the skills to be emphasized and techniques for teaching these skills will be included along with follow-up and enrichment activities. New basal reader series and supplementary reading materials will be examined and recommended for adoption. In-service programs will include demonstrations of the use of materials such as the multi-level reading laboratories and reading filmstrips.



A system of record-keeping will be established to show each pupil's progress in reading. Each pupil's folder will include information concerning test data, his reading interests, and a list of the basal readers used and the library books read. Pre-reading and reading readiness programs will be encouraged since practically none of the entering first grade pupils will have had kindergarten experience and many of the pupils will come from cultural backgrounds which do not predispose them to beginning success.

The third phase of this reading improvement program for a rural community is not yet in operation but already there are encouraging indications that real progress has been achieved.

25.

## 2. Conquest and Exploration: A Reading-Language Program for Grades Four to Six

JOHN N. RYCKMAN
Scarborough Bd. of Education (Ontario)

THE CLOSE relationship among the language arts—listening, speaking, reading, and writing—has been verified by research and supported by classroom observation. Verbally proficient children tend to be high in reading ability. Children who are low in general language ability tend to experience difficulties in reading. The evidence that language competence is the single most important factor in reading success is overwhelming. It would appear, therefore, that an integrated language program is the key to better reading.

One such program is being developed in the Junior Division of the Scarborough Public Schools. The nature of the program has been strongly influenced by the success the language-experience approach used in teaching reading in the primary grades. Both programs are based on the same guiding principles:

1. *Exploration.* The children have opportunities to select a variety of language activities through which they may explore interesting words, ideas, and organizations.
2. *Guidance.* Teachers help the children select those activities which are most likely to help them gain insights into their own abilities and limitations.
3. *Enrichment.* The children are encouraged to develop their tastes and creative powers through opportunities to express their ideas in group discussion, prose, poetry, dramatics, and other forms of creative response.
4. *Individualization.* Each child is viewed in the light of his own particular aptitudes, interests, and needs. The program is designed to help each child realize his potential.
5. *Flexibility.* The program provides, within a clearly-defined general program, different learning experiences for different children at different levels of development.
6. *Articulation.* The people concerned with each child over a period of several years have opportunities to share their knowledge about his apparent levels of language development and the ways in which he appears to learn most effectively.
7. *Evaluation.* Evaluation is made on the basis of individual growth, rather than on arbitrarily determined grade standards. In both the primary language-experience and junior reading-language programs the sequence of activities begins with a common experience. In the early elementary grades this may be an excursion, a film, filmstrip or recording, a classroom project, or a story told or read by the teacher. But as the children become increasingly independent in reading, the reading selections themselves provide common experiences around which language competencies can be developed. Many classroom programs in grades four, five, and six use the reading selections as focal points for a wide range of oral and written language activities.

The following sequence of reading-language experiences tends to be the one most commonly used by our classroom teachers:

1. The children read the selection to find out what the author is saying and how he says it.
2. The children discuss the author's ideas and method of presentation and relate these ideas to their own personal experiences. Attention is given to vocabulary development and training in reading-thinking skills.
3. Each child has an opportunity to respond individually to the ideas he has acquired during the reading of the selection and the group discussion. These responses may take the form of a creative activity, research project, or other related reading.
4. The children share their responses with one another. Evaluation criteria are established and the next sequence of reading-language experiences is planned.

Because of the emphasis the program places on individualization and group instruction, it seems preferable to have the children working in groups, each group reading a different selection and participating in somewhat different language activities. In some instances the teacher has followed through a sequence of experiences with an entire class in order to establish basic communication procedures and classroom routines. Other teachers have found that two groups can be handled quite effectively during the introductory period of the program. The second group usually operates about one step behind the first in the reading-language sequence. Once the general procedures have been established the classes are divided into three or four groups. The teachers seem to feel the program is most effective when the groups are limited to from six to ten members. As one teacher observed, "It is much easier to work with a group of eight children than with thirty."

Almost any type of literature can be used in the reading-language program: stories from the basal readers, novels, newspaper and magazine articles, and materials from social studies and science textbooks. In selecting the materials, the interests of the pupils and their levels of reading competencies must be kept in mind so that the effort involved in reading the materials does not interfere with the children's interest and enjoyment.

### Discovering Ideas

The reading of the selection is guided by a few carefully prepared questions. Some of these questions may be formu-



75.

lated by the children themselves during the introductory discussion. Others are prepared by the teacher, who has the added advantage of having read the material ahead of time. She will know, for example, what elements of the setting, character, and plot are essential to the organization of a story and can focus attention on these through her questioning. If difficulty is anticipated with particular words or concepts basic to the understanding of the selection, attention is given to these before the reading begins. Should the teacher wish to draw attention to a few interesting words which are going to be used in the discussion period, these words can be included in the questions and underlined. A line under a word is a signal to the child that the word is going to receive special attention. If he is not familiar with the word, he is expected to locate its meanings in a dictionary and select the appropriate one for the context in which it is used.

Once the selection has been introduced, it is usually a good practice for the teacher to "get out of the road" and let the children explore the material on their own. Whether it is story-type or informational material, the theme can be interrupted, the train of thought disturbed by the teacher's breaking in every page or so like a television commercial. Not all the children will interpret the selection in the same way. What ideas they get from it will depend upon their previous experiences. A variety of responses can be expected from the members of any one group. This individualization, of course, adds interest and vitality to the discussion period.

### Collecting, Organizing, and Sharing Ideas

After the children have read the selection, they have opportunities of sharing their ideas with one another—of examining, revising, and refining them through group discussions. Preparation is the key to good discussion; and as the program develops the children come to realize the importance of making jot-notes, page and paragraph references, outlines, and summary statements which will help them recall what they want to say during the discussion. In the early stages of the program most discussion questions are formulated by the teachers, but as the children learn the art of constructing good discussion questions, more of these are prepared by them.

Questions which seem to stimulate the most interesting discussions include:

*What kind of person does . . . seem to be?*

*What do you think of . . .?*

*How might the story have been changed if . . .?*

*If you had been in that situation how would you have handled the problem?*

*Do you agree with the author's point of view?*

*Why do you suppose the author chose to make his point in this manner?*

The quality of the discussions improves as the children learn effective ways of introducing, presenting, and summarizing their ideas and develop their abilities to listen actively and use appropriate evaluation procedures.

During this step of the reading-language sequence, attention is given to helping the children develop better thinking skills. After one group of children had read a legend about the migrations of the Canada goose, they were asked to collect all the factual information about the bird presented in the selection. The teacher then helped them organize the information into outline form. The outline was then used by several children in turn as the basis for oral summaries. This activity not only gave the girls and boys experience in preparing outlines and summaries but also provided practice in distinguishing between fact and fantasy, identifying main ideas and supporting details, and seeing relationships among main ideas and supporting details. Other reading-thinking skills are developed in similar ways. The emphasis is on the *process,* rather than on the product.

At each step of the reading-language sequence attention is given to helping the children broaden their vocabularies. One procedure which has proved effective capitalizes on the interest girls and boys seem to have in making collections and at the same time helps them develop an appreciation of the writer's skill. In one

selection, for example, an author used several especially vivid words and phrases to describe a storm at sea. The children were helped to collect these words and phrases and classify them according to the particular sense to which they appealed. The collection was supplemented by ideas from other sources and used by the children as a starting point for creating new organizations on related themes.

Over a period of several weeks each group makes a number of collections. Those of concern to the group as a whole may be printed on charts and displayed for ready reference. Examples of this type of collection are words used to describe personality traits (resourceful, determined, gullible), emotional reactions (heartened, depressed, encouraged), and physical appearance (robust, puny, delicate). These lists, which are developed as the children discuss the characters in one story, provide labels which can be used in describing characters in other stories. In addition to the group collections, each child is encouraged to build his own personal thesaurus of interesting words and phrases in his reading notebook. Many opportunities are provided for the children to use their words in oral and written language.

### Responding to Ideas

Children may respond in many ways to the ideas explored in the reading-language sequence. A careful examination of the reading selection itself will suggest several worthwhile activities. Some descriptive story-type materials almost demand interpretation in art, music, or creative movement. Informational materials are likely to promote research and further study. Both types of materials can be used to inspire a wide variety of written language experiences.

While reading a story about a group of barnyard animals who migrated to Florida, the children in a grade-four class received the following list of suggestions. Each child was asked to select one activity and explore its possibilities. Those children who had ideas which they felt were better than those listed were encouraged to "try them to see what happens."

1. When a person travels south for the winter, he usually takes a suitcase full of many things. Suppose you were one of the animals in the story. Prepare a list of the things you might take with you.
2. We are told that after many adventures, some pleasant and some unpleasant, the animals arrived in Florida. Make up a story about one of the adventures.
3. Pretend you are a newscaster on television. Write the report of the animals' arrival in Florida as it might be presented during your evening news broadcast. If you wish, include a commercial as part of the program.
4. If you were to meet the animals on their way south, you would likely have many questions to ask them. Organize a list of questions you might like to ask one of the animals.
5. According to the story, the animals journeyed to Florida on foot. Trace on a map a suitable route for them to follow and be prepared to explain it to the other members of your group. It will be helpful if you are able to point out the larger cities through which the animals might pass.
6. The author tells us that as the animals travelled south they made up songs to sing. One of the songs has been included in the story. Compose another verse for the song. Better still, make up an original animal-travelling song.

An examination of the suggested activities reveals that each response requires a different type of organization. The first activity calls for a list. Lists are often prepared as aids in recalling details. Children can be helped to note that when the related items on a list are organized in groups they are easier to recall. The second activity requires the author to organize story elements into a sequential order. If the story is to be told to the other members of the group, a child may record only the main ideas and use this to guide his presentation. If the story is to be read to the group or if the children are going to read the story to themselves later on, a much more detailed organization is necessary.

The organization of a news report is quite different from that of a short story. In a news report the author generally

presents a collection of main ideas first and elaborates on each later on. Commercials tend to be presented in a great variety of organizations but to be less direct than news reports in their presentation of facts. Factual information can be organized on a map. It may also be organized into diagrams, pictures, charts, tables, and graphs. Poetry may be presented in an almost unlimited number of organizational patterns, but each pattern is carefully structured.

If children are to acquire competency in written language, it is essential that they explore different organizations and learn how to select those organizations most appropriate for their purposes and how to use each one effectively.

### Presenting, Evaluating, and Planning

This final step in the reading-language sequence may well be the most important. Each child has selected an activity of special interest to him; he has experimented with new words and ideas; he has received what guidance he needed from his teacher; and now he is ready to share his creation with the group.

If it is true that what teachers expect of children influences what they produce, then what should we look for in his presentation? Correct grammar, spelling, and punctuation? Good sentence structure? Continuity in plot or character development? Perhaps. These are important editorial skills, essential factors in written communication. But if we wish to promote exciting creative responses, perhaps we should be much more alert to signs that the child is developing a sensitivity to language, that he has a growing awareness of what words are and what he can make them do for him.

Children's writing can be intensely personal. If the program is sufficiently open and if the children feel free to explore, to experiment, to try things out, we soon see in their writing those glimpses of reality, those flashes of insight which children have about themselves and their world. Through the ways in which he responds to his experiences, each child reveals something about his individual giftedness.

A poem displayed on a bulletin board, a report recorded on tape, a diagram photographed for a slide collection, a story duplicated and used as a reading selection, or a word of genuine praise, does more to promote imaginative writing than all the red pencils in the world. A comment such as, "Good! Let's publish it!" implies to the child that his work has real merit and that, after it has been edited, it will be typed out and made available for everyone to read.

The children should be involved in the evaluation session. Questions such as, "What did you like best about . . .?" "What interesting words and phrases did you notice?" "How might . . . improve his work?" guide the discussion and help the children to be more constructive in their comments.

If a child has attempted to use a particularly interesting organization, a checklist might be developed with the group to help the children notice the specific characteristics of the organization. In addition to providing a reference for evaluating one kind of response, such a checklist may alert the children to the fact that such an organization exists. It frequently happens that once an organization has been drawn to their attention in this way, children experiment with it when they respond to the ideas presented in the next reading-language sequence.

The need for both short-term and long-term planning in the program is obvious. Attention must be given to locating suitable materials, identifying the reading-thinking skills which can be developed through each selection, noting the specific reading, discussion, and writing skills with which individuals seem to need help, and organizing the program so that the children have opportunities to use the skills they are being taught.

It should be emphasized that the reading-language sequence described here is only one aspect of the total classroom reading program. It must be complemented by a program in which each child is encouraged to broaden his background of experience through reading widely in both fictional and informational materials.

It is too soon to have much statistical evidence about the results of this program, but it seems to be effective. The teachers report that the children are keenly interested in reading, and that discussion skills and general writing abilities are improving noticeably. One reason for the apparent success of the program may be reflected in the comment of a grade-six student who observed, "I used to skip over the top of my reading. Now I try to get inside it and find out what it's all about."



78.

Vol. 7, 62

26.

# 27. The Big City Story—Philadelphia

ROSEMARY GREEN WILSON

I am a lucky person in at least one respect. I occupy (during my working



hours) a room with a view. From my office window I look out over one of the loveliest parkways in any American city toward a many-columned art museum that crowns our own small Acropolis. A superhighway runs almost beneath my window and extends a perpetual invitation to get into a car and follow it—as far as Chicago without encountering a light or a crossroad! A broad river with the strange name of Schuylkill flows by just two blocks away dividing central Philadelphia from the vast area of West Philadelphia.

Yet as I look at all these evidences of a great city, another view keeps slipping between my eyes and the actual scene before me. This is a picture of the city which has been forming in my consciousness during many years as a student in our schools and later as a teacher and a supervisor in those same elementary, junior, and senior high schools. It is a picture which has changed in those years from a city containing many tightly knit and stable communities within its limits to a city in the throes of a tremendous shift of population. Toward the close of World War II and in the years immediately following, thousands of families pulled up stakes in the city and the great mass exodus to the suburbs was under way. Into the innumerable row houses which characterize Philadelphia and which were left vacant by this movement came a new labor force for our expanding industries. Though representing many sections of the country, the majority of these in-migrants came and are still coming from the states of the Deep South.

No group in our city has been more aware of these changes than those of us in the public schools who are in daily contact with some of the children of the privileged in our community and with all of the children of the underprivileged. Yes, the view from my window includes more than art museums and superhighways, it is made up of the faces of a quarter of a million boys and girls for whose education we are responsible. It is an awesome task and yet it is today "The Big City Story."

## The Problems of the Schools

To do justice to the total problem of education in a big city today would require the contribution of many professional workers from the Superintendent to the classroom teacher. However, my assignment for this meeting is not that, but instead a discussion of those phases of the total problem which lie in the field of reading. Under the most favorable circumstances this assignment would be difficult and the variables to be found in any big city school system contribute to that difficulty and compound it.

In reviewing the situation for the purpose of preparing this paper, the problems in the area of reading seemed to group themselves as follows:

1. Student population
2. Articulation—between and among the levels of elementary, junior, and senior high school
3. Program

It is my purpose in this presentation not only to discuss the problems in these areas, but to describe some of the means we have devised to cope with them.

## Student Population

Basic to any curriculum program and particularly so in the field of reading is the nature of the student population of the school district. The facts which I cited at the beginning of this paper concerning the changes taking place in the adult population of our city are reflected, of course, in the children and young people who comprise the student body of the public schools. Intellectually, they run the gamut from those who enabled one of our high schools to have the second highest number of Merit scholarship winners in the nation to those who make up our classes of "retarded trainables," that is, those not considered educable by even the lowest standards. Economically, these students represent some from very privileged homes in the city with a few from suburban areas who pay to attend our Central and Girls High Schools to those from backgrounds of such abject poverty and deprivation that few among us can actually realize or understand their situation. Culturally, the range extends from children of very well-educated and professional parents to those children of completely illiterate parents often recent in-migrants

79.

from rural areas of the Deep South. These, then, are our children.

## Articulation

Curriculum programs in a city as old as Philadelphia have, of necessity, developed by a process of evolution. Change comes about gradually as adjustments are made and new ideas are woven into the fabric of the old to meet the needs of a changing world and a changing population. This is certainly true of the reading program, Kindergarten to Twelve, in our elementary and secondary schools. Within the framework of the Curriculum Office, an all-out effort is being made at the present time to accomplish the following purposes:

1. To make a completely articulated reading program from Kindergarten to Twelve a reality
2. To provide the training for teachers that will make this possible
3. To provide the special services in reading which are required

If there is any one valuable attribute which I bring to my job of directing the reading program from Kindergarten to Twelve, it is my classroom teaching experience at every level of our school system from elementary through junior and on to senior high school. The only truly "articulated" teacher is the unfortunately rather rare soul who has enjoyed little children in their still formative and hopeful years, has wrestled with the well known growing pains of the young adolescent in junior high, and has known the disappointments of the "drop-outs" in senior high school. Since any other articulation is, of necessity, academic, ways must be devised to get teachers stirred up about the idea of a continuing reading program from Kindergarten to Twelve and concerned about techniques which they can employ to make it a reality. I need hardly say that with over 200 elementary, 26 junior, and 21 senior and technical high schools the task is herculean. In the face of such a challenge, in fact, there are even days when I feel fortunate if I have brought about better articulation between the teachers of the first and second floors of one elementary school.

Seriously, however, the following specific steps have been taken to bring about this much desired understanding and continuity:

1. New cumulative records which will contain on *one* card the standardized test results from grades one to twelve. These take the place of a former two card system (elementary and secondary) and enable any teacher to see at a glance (in the form of a line graph) the progress of a child in reading, spelling, arithmetic, and allied areas for all the preceding years. It is hoped that through the use of one card, secondary teachers will have a better picture and a greater understanding of a student's achievement or lack of it in the all-important elementary years.
2. For many years committees of administrators and teachers working on curriculum guides in reading and the language arts have reflected the Kindergarten to Twelve philosophy through the inclusion on the committee of representatives from all levels of the school system.
3. The bi-monthly district meetings of principals of schools representing both elementary and secondary are designed to acquaint each group with the professional problems and programs of the other.
4. A concerted effort is being made this year to coordinate the remedial reading programs of the elementary and secondary schools by arranging for elementary reading teachers to hold their district meetings in junior high schools for the purpose of finding out what happens to children in need of special reading help after they leave the elementary schools. In addition, junior high school reading teachers regularly visit neighboring elementary schools to find out in advance as much as possible about the children who will need remedial reading work when they enter the secondary schools.

Articulation in the area of reading is no problem from grades 7-12 in our schools since from its inception in 1948, the secondary reading program has been coordinated. From 1948 to the present time a monthly professional meeting for the seventy reading teachers of the junior and senior high schools has provided con-

tinuity and a shared in-service training program.

There is still much to be done, however, in our efforts to achieve better articulation between the levels of our large school system. The mobility which once characterized many teachers in going from one level to the next has been practically eliminated by the adoption some years ago of the single salary schedule. Therefore, means other than actual experience must be found and put into effective practice particularly in the field of reading to provide the continuity in teaching that the sequential nature of the reading process demands.

## Program

What then of the program in reading which must form the real mortar to hold together the bricks of our system? As of this year the beginning years in our schools are designated the Continuous Progress Primary or, in other words, the ungraded primary. Closely related to a basic reading system with achievement in reading the most important, though *not only,* criterion for advancement, the first three years of the elementary school have been divided into nine levels of reading. These levels correspond to the reader levels of a basic series from pre-reading to Book 4 and above. With the emphasis upon the *progress* of the individual child with no repetition of grade or work, it is anticipated that a few gifted children may complete the three years' work in two, most will finish the primary unit in the usual three years, and some children will require four years to reach the point in reading and arithmetic where they are ready for grade 4. In addition to progress from one reader level to the next, great emphasis will be placed upon growing independence in word recognition. All the other aspects of the language arts program remain very much a part of the picture, of course, but for pupil placement and reporting to parents the basic program is the yardstick.

At the secondary level, Philadelphia, along with every other school district in Pennsylvania, provides two periods of developmental reading per week for every student in grades 7 and 8. Though this is now a state-mandated program, developmental reading or reading improvement for every child has long been a part of the junior high school curriculum in Philadelphia. To assist the classroom teachers who must carry on this program now, a guide entitled *Developmental Reading, Grades 7, 8, and 9* was written and put into their hands. In addition, two television series (including one this year) have been devoted to teacher education in this field. Reading teachers in the junior high schools, also, assist the classroom teachers of developmental reading by means of demonstration lessons, conferences, and help in the selection and use of materials.

The senior high schools offer a variety of reading improvement programs ranging from a few of the developmental or all-school type such as that described in *The Reading Teacher* for January 1961 to many high schools providing elective, two-period minor courses in speed reading, study skills, advanced reading, and research reading.

## Special Services in Reading

For the student requiring special help in reading because of retardation in relation to his ability, special remedial reading help is offered in small group situations both at elementary and secondary levels by the reading teachers to whom I have referred. Recruited from the school faculties at elementary level, but selected by competitive examination at the secondary level, these teachers are truly the reading resource people in their schools. In addition to their teaching of retarded readers, they offer such other services as individual testing of pupils referred by classroom teachers, demonstration teaching in regular classes, techniques and assistance to teachers of slow-learning students, advice and help on selection of materials, leading in-service courses in their schools or districts.

For the student severely retarded in reading at either elementary or secondary level, the Philadelphia Public Schools Reading Clinic offers its services. To the Clinic located in a center-city high school go children from every section of the city for a complete analysis of their problem including psychological, achievement, and

projective type testing. Some of these pupils are then scheduled for work with the Clinic teacher, but more return to their own schools to programs based on the recommendations of the Reading Clinic psychologists.

In-service courses for teachers interested in clinic work as well as improving of the teaching of reading in regular classes at any level are offered both during the school year and in the five weeks Philadelphia Public Schools Workshop each summer. College credit, both undergraduate and graduate, may be obtained from the University of Pennsylvania and Temple University at this Summer Workshop.

In addition to these voluntary forms of teacher training in the field of reading, the Curriculum Office has recently appointed two supervisors of elementary reading to work full-time on the job of improving reading instruction. For many years each of our eight districts has had the services of what we call a collaborating teacher in language arts to assist in the job of teacher education. With all of this, the task is still a gigantic one because of the teacher turnover in a large city system, the lack of well-qualified teachers for permanent appointment as well as substitutes for interim jobs.

## For the Future

Yet with all that we are doing and trying to do, the recurrent nightmare of the public school administrator and supervisor in the big cities across the nation is the fact that we have not yet found the answers to the problems posed by Dr. Conant in *Slums and Suburbs,* by Dan Schreiber in his study of drop-outs, by Finis Engleman in the *AAUW Journal* for March in his article entitled "Some Priorities in Public Education," or by the *Saturday Evening Post* in the articles telling us that "We Waste a Million Kids a Year." Granted that this represents a complex of problems, you and I know as reading people that at the base of much of the later failure and frustration of these boys and girls is their *initial* failure to learn to read and write. The common denominator in this picture is definitely school failure which is just another way of saying reading failure either complete or being able to read only at second or third grade level when you are sixteen years old.

What is the answer? The answer is to be found, I think, in the answers to such other questions as: "How different can you dare to be in adopting new ways to teach beginning reading? How imaginative? How creative? How willing are you to give up comfortable old ways to follow new, difficult, and at times uncharted new ones? How much more than lip service are you going to give to the idea of really "meeting the needs" of this segment of our student population? In the final analysis, how much do you really *care* about this problem?

Actually, there is no one whether he lives in a big city or small community who can afford not to care about this and other problems of our urban centers. While we have heartening evidence in the various Great Cities Projects of the interest and financial support of educational foundations on some aspects of these problems, this help is limited at the present time. Instead, I feel we must turn to our teachers with new ideas and new methods of teaching reading and the other language skills, methods which they can understand, accept philosophically, and then put into practice in their classrooms.

That we *can* reach this group of children in our schools, that we can deal with their problems more successfully, I am convinced. Some of us are trying new approaches in a modest way, but I, at least, still have the eerie feeling that while some of my colleagues have said that they are behind me in this experimentation, they have mercifully neglected to say how far behind. There is still much to be done.

In closing, I should like to quote a few sentences from Fred Hechinger's book *The Big Red Schoolhouse* in which he says, "In America they proclaimed the unheard-of ideal; equal educational opportunity for all children. It was a revolution intended to open the doors of intellectual excellence to all who cared to enter."

Through the years "excellence" became the forgotten word, while the "open door" was made the permanent symbol. In time, despite the "open door," many children were no longer offered true equality of opportunity, because behind the "open door" the shelves were "often bare."

82.

21.

Vol.7, 62

## 22. Harvard-Carnegie Study —A Preliminary Report

1961

MARY C. AUSTIN

Few parents or educators would disagree with Paul Woodring's emphatic statement that "Teaching children to read is the most important single responsibility of the schools because all further education depends on it. . . ."[1] Is it not logical, then, to ask, "Are today's schools accomplishing their self-appointed task?" Many value judgments of competency in the teaching of reading have been made, particularly within the past seven years. A general conclusion that some teaching is good, some is poor, but that most can and should be improved cannot be disputed.

### Young Readers

One controversial aspect of the reading program encountered in the Harvard-Carnegie study was the question of *when formal reading instruction should be initiated.* In most schools, administrators, teachers, parents, and children anticipate that entrance into first grade will lead automatically to the introduction of formal reading for very nearly all children at approximately the same age. This plan is followed in most American schools, regardless of the intellectual, emotional, physical, and environmental differences which exist among typical first graders.

Knowing that some children do learn to read before entering school, parents and educators frequently debate the wisdom of this. The questions of concern, however, are not: *Can* children learn to read before the age of six?; nor even, At what age should formal reading instruction be initiated for the *average* child? Rather, among the questions still to be answered are: (1) *Should* American children start earlier? (2) Do children who learn early enjoy reading as much as those who begin later? (3) What is the value of early achievement in reading? (4) Are those who read prior to school entrance more advanced in reading skills development at ages 8, 10 and 12 when compared with their peers who began in first grade? (5) Will psychological and physical problems result from early reading experiences, as many people have suggested?

Obviously, those children who have learned to read prior to kindergarten or first grade entrance should receive the kind of instruction that is appropriate for their needs and accomplishments. Early provision for these young readers should be possible in any classroom situation, but unfortunately this is not always the practice. In schools where attempts are being made to provide worthwhile experiences for these youngsters, administrators and teachers ask: What kind of placement is best for those who learn to read before first grade? Should the child engage in independent reading within the self-contained classroom with occasional brief periods of help from the teacher who may have as many as 35 other children? Is it wise to let the child "visit" in a higher grade where he will receive instruction with older children reading at his level? Should the school adopt a non-graded primary unit as a means of meeting the wide range of differences in reading ability (and in other areas)? What curriculum changes will be required for those children who already are reading at the second grade level (or higher) by the time they enter first grade? These are but a few of the questions which faculties are seeking to answer as they work together on the problem of providing better experiences for young readers.

### Approaches to Beginning Reading

A number of recent provocative publications have launched a barrage of attacks upon reading instruction in America, particularly upon the methods used to teach beginning reading. Even though the accumulated knowledge of reading specialists and the weight of research favors a *combination* of approaches during the initial stage, confusion exists regarding how instruction actually should be started. Today one of the burning issues on which

[1] Paul Woodring, "Education in America," *Saturday Review,* January 20, 1962, pp. 39-40.

83.

there is some disagreement among authorities is the timing of the introduction of phonics: Should phonics be introduced prior to, concurrently, or following the teaching of a basic sight vocabulary?

An argument voiced by the majority who advocate initial emphasis on "whole-word recognition" before the introduction of sounding techniques is that the perceptual process in the mature reader involves words and phrases as units. Therefore, the child should acquire a sight word vocabulary as early as possible. To do so means that the same words must be seen many, many times in a great variety of contexts—hence the basis for vocabulary controlled stories in basal reading materials. Once the high frequency of exposure has assured a beginning sight vocabulary, phonic generalizations can be developed gradually along with other word recognition techniques such as structural analysis, configuration, and context clues.

The minority group of authorities who advocate the introduction of phonics before a sight recognition vocabulary is established argue that whole words do not necessarily constitute the *real* perceptual units for young children. Diack,[2] for example, claimed that children do not perceive word wholes, nor even whole letters, but do attend to special characteristics, or smaller features of letter forms.

Proponents of "phonics first" also argue that good reading of an alphabetic language can only be achieved by learning the sound values of the letters used to represent that language. According to this point of view beginning reading materials should be limited as far as possible to words that are phonetically regular, while whole-word recognition as such will be stressed later when the child has mastered certain phonic skills.

Until the results of large-scale, controlled, accurately reported studies are available to indicate clearly the most advantageous time to introduce phonic analysis, this question remains unanswered. In the meantime, 50 of the 51 elementary school systems visited by the staff are committed to an eclectic approach to beginning reading. Only one system used phonics as the exclusive method of instruction, while three of the cities visited relied heavily upon separate phonics programs in conjunction with one or more basal readers.

Throughout the Harvard-Carnegie study the interviewees posed numerous questions concerning the future role of phonics in the reading program. The following were typical: To what extent do children possess phonics aptitude? To what extent do children generalize their own phonic principles whether or not they receive systematic phonics instruction? To what extent is aptness for acquiring phonics skills related to personality traits? In addition to these were the practical questions concerning the amount and kind of phonics instruction needed for the development of good reading ability and ways of correlating it with other parts of the reading program.

## Thursday's Children

Based upon their interviews and observations, the somewhat depressing consensus of the staff is that the teaching of reading in our schools is, at best, of mediocre quality. In far too many instances the teaching of reading is dubiously highlighted by improper application of basal reading materials, rigidity of methodology, lack of evidence to substantiate claims that critical reading skills are taught, and the failure to utilize materials adjusted to the needs of children.

We may well ask why the teaching of reading in our schools is mediocre. Preliminary findings of the Harvard-Carnegie study underscore several reasons, but the following are particularly significant: the absence in many schools of sufficiently helpful in-service education in reading methods and materials, the failure of too many administrators to assume the role of truly effective instructional leadership, the ambiguous role of the elementary supervisor, the massive influx of student population compounded by a high rate of teacher turnover, and the almost universal declaration by the teachers interviewed *that their collegiate preparation in the teaching of reading was inadequate.* With regard to the last, principals concur with teachers in the need for strengthening collegiate

[2]Hunter Diack. *Reading and the Psychology of Perception.* New York: Philosophical Library, Inc., 1959.

84.

courses for the teaching of reading in the elementary school.

On the brighter side, our findings substantiate the presence of a trend that cannot help but lead in the right direction: educators are genuinely concerned about the extent of progress in reading and are renewing their efforts to improve their programs during the sixties. School people generally are displaying an encouraging willingness to re-examine reading practices that have been in existence for years. In a climate of open-mindedness they are studying classroom problems related to practically every issue that arises in promoting growth in reading. Many schools, in fact, are already discarding questionable teaching practices and initiating more promising ones.

You will recall the nursery rhyme that begins "Monday's child is fair of face, Tuesday's child is full of grace . . ." and on to Thursday's child who has "far to go." It seems to me that we who have chosen to devote our professional lives to the improvement of educational opportunities for boys and girls have been cast in the role of Thursday's children—for while we have made significant advances in the teaching of reading during the past quarter of a century, we still have far to go before attaining the quality we so fervently desire. It is my sincere belief that during the sixties, a two-pronged attack must be made which will result in the following: (1) upgrading the collegiate preparation of prospective teachers of reading, and (2) providing more effective in-service education programs for the entire staff.

When the findings and recommendations of *The Torch Lighters*[3] are combined with the report and recommendations of the current study by the Harvard-Carnegie staff, educators will have guidelines for strengthening both the pre-service and the in-service education of teachers. Hopefully, the resultant reading programs in our elementary schools will then be more dynamic, functional, consistent with sound philosophy and psychology, and, above all, will produce mature and literate readers.

[3]Mary C. Austin, Coleman Morrison, et al, *The Torch Lighters: Tomorrow's Teachers of Reading.* Harvard University Press, 1961.

85.

28.

Vol. 9, 64



## 3. Using in the Classroom What We Know About Reading

MILDRED A. CARLSON

INSERVICE education should be able to help teachers with varied professional profiles in the same way a strong reading program should provide for individual differences in children. Believing that teachers have the know-how to teach reading and the capacity to develop true artistry in teaching reading, in-service education opportunities should help teachers use in the classroom what they know about reading instruction.

In-service education, if it is to effect a change in people, needs to have the same personalized significance for teachers as we expect classroom learning to have for children. In-service education should be personal experiencing in all its globularity and depth so that the teacher grows in the ability to recognize decision-points, to define productive purposes, to be aware of alternatives, and to develop inventiveness in methodology.

If we examine the multiple approaches used currently to encourage self-development, we might view them along a continuum from a "spectator activity" to problem solving experiences in the "arena of activity."[1] Conferences, meetings, extension courses *might be* a spectator activity creating reactions related to the performance of participants rather than a personal introspection of one's own behavior. Study groups, workshops, demonstrations, professional reading, research involvement, curriculum development *might lead* to exploration of new content to be covered, new understandings of children and how they learn, new ways of teaching, new materials that can be used.

### Quality Assessment

Under the leadership of the Curriculum Coordinating Council, each curriculum area is scheduled for assessment every five years. A reading study committee designed the plan for assessment of current status in reading. Objectives of an effective program were clearly defined; instruments to evaluate these objectives were selected or developed. Through the use of population samples representing the total elementary school population and including every elementary school at some grade level, all teachers became aware of the study.

[1]Ned A. Flanders, "Teacher Behavior and In-Service Programs," *Educational Leadership* (October 1963), page 26.



Test data were compiled, statistics computed, and significant data summarized in pictographs and tables for analysis by the Reading Study Committee and other elementary school personnel. A summary of observations and implications for the instructional program was prepared for the Reading Curriculum Committee.

### Curriculum Development

About one hundred elementary school principals and teachers from every grade level volunteered to be on the Reading Curriculum Committee responsible for the development of a revised *Guide to Teaching Reading*. Using the information gathered together by the Reading Study Committee and studying the writings of specialists in the field of reading, desirable outcomes for each of the major goals were outlined, then further delineated as to desirable outcomes at several developmental levels. Selected writers for each of these levels developed the content of the guide. A preliminary copy and more recently a tentative manuscript have been submitted to committee members and faculty groups for reactions and suggestions.

### Resource People

*Resource Teachers in Reading.* During this time the *Guide to Teaching Reading* is being developed, two master teachers on special assignment are on call to teachers or faculty groups. They may discuss instructional approaches with individual teachers, grade level groups, or a total faculty. Specific approaches may be demonstrated and followed by conferences. Reading disabilities of specific children may be diagnosed and appropriate adjustments in materials and methods explored with the classroom teacher.

*Building Resource Teachers.* Several elementary school staffs in disadvantaged areas of the city have an unassigned teacher who serves as a resource teacher. The role in relation to reading instruction has included: demonstrating for the classroom teacher, helping to provide appropriate materials, suggesting teaching approaches, diagnosing needs of specific children and trying out some teaching approaches with them.

*Helping Teachers to New Teachers.* Through our new teacher orientation program, Helping Teachers provide or arrange for three types of services. They spend a half-day about once a month in the new teacher's classroom; they may demonstrate reading techniques using multiple materials in a variety of organizational patterns.

### In-service Education Meetings

*District Meetings.* All elementary school teachers had an opportunity to attend a district meeting on released time with the focus on reading. Aids to diagnostic teaching were discussed. In subgroup meetings, teachers pursued topics, such as, developing reading foundations, word recognition abilities, study-skills, or skills of creative and critical thinking; providing challenging independent activities; extending reading interests; assisting the delayed reader.

*Faculty Meetings.* Some faculties selected reading as their area of study for one or more of a series of four meetings on released time.

### In Summary

Teachers are aware of the complexities of differentiation of instruction to meet children's needs and some ways in which these needs can be met or appropriate challenges provided. The implementation of these ideas into classroom practices may be encouraged (1) by participation in the assessment of the quality of the instructional program, (2) by involvement in the development of curriculum materials, (3) through the help of resource teachers, and (4) through directly planned in-service education meetings and study opportunities. A new idea, time for contemplation, a chance to observe another teacher may be the impetus a teacher needs to develop from a "knowing" level to a "doing" level.

86.

29.

Vol. 5, 1960

## b. Through Teacher Experimentation

128.

LEO FAY

At a time when we read so much about individualized reading, it would be appropriate to define the topic of this paper as concern for the individualized teaching of reading. Whenever materials and methods become systematically organized, there is always the danger that the teacher may sacrifice his creativity for the convenience of the system. If carried to an extreme the teacher could be reduced to little more than a robot whose primary function would be to find the proper page and then to say and do what the manual tells her to.



Although their critics at times suggest it, this, of course, is not a necessary evil of basal readers and teacher's manuals. Both have and are making major contributions to the teaching of reading. Rather, as has been true of the Five Steps, the unit plan, and other systematized approaches to instruction, the problem is not so much the program as how the teacher uses it. Very simply stated, the foundation for more effective instruction is to be found first in the creative teacher.

Following this line of reasoning a course called, "The Improvement of Reading in the Elementary School" was developed in the fall of 1953 at Indiana University. A major purpose of this course is to provide an opportunity for classroom teachers to experimentally attempt to improve some phase of their reading programs. The course is an elective within the fifth year program and is consequently taken primarily by classroom teachers interested in improving their reading programs. During the last six and a half years I have had the opportunity of working with over seven hundred such classroom teachers.

During the first class meeting teacher experimentation is discussed and teachers are told of the course requirement. At this time they are asked to survey their reading programs in order to select one phase of it for study and experimentation. For the second class meeting the teachers bring a proposed experiment topic and a short description of their teaching situation. When this is approved the teachers are asked to make an initial evaluation of their children's achievement, review related research and expert opinion, and discuss their planning with the instructor. Upon starting instruction they maintain a log of their activities, and upon completion of the experiment they make a final evaluation of the progress their children have made. Capitalizing upon their hindsight, they are also asked what they would do differently if they were to re-do their experiment.

Teachers report a feeling of inadequacy as a common first reaction to the requirement for classroom experimentation. In fact a few usually drop the course after the first meeting. They complain that the busy teacher does not have the time, the "know-how", or the inclination to carry out such an activity. Enthusiasm invariably runs high, however, as the semester proceeds and tangible results of a difference become evident. Teachers in these classes have demonstrated clearly that limitations to classroom experimentation — planned and executed by the teacher—are more apparent than real. When the teacher wants to experiment, the time can be found. As to "know-how," the more technical and formal research studies make experimentation appear more difficult than it need be for the teacher's purpose. For the teacher is concerned primarily with the learning of his children and with putting his ideas to the test, and not with results that may have wider application. Straightforward and simple designs are both desirable and appropriate for these purposes. The following examples illustrate typical teacher experiments.

Miss Crews,[1] a fourth grade teacher was concerned about her children's lack of ability in arithmetic reasoning. In spite of an enrollment of forty-five children, which many teachers would use as an excuse for not trying, Miss Crews was determined to help her children in this phase of arithmetic which depends heavily upon special reading skills. As part of her experiment, Miss Crews stressed skills in comprehension, feeling that, since reading comprehension is essentially a form of reasoning, there is a close relationship between it and achievement in arithmetic reasoning. Special attention was also given to the vocabulary that serves as "clue" terms in arithmetic problems.

Miss Crews conducted her experiment over a four-month period. As a means of checking progress different forms of the *Stanford Achievement Test* were administered before and after the experimental period. Progress in both paragraph meaning and arithmetic reasoning was outstanding. Although grade status was 4.5 at the end of the experimental period, 49 percent were performing at fifth grade and above in parapraph meaning and 53 percent were at fifth grade or higher in arith-

[1]Elma Fern Crews, *Improving Arithmetic Reasoning Through Special Teaching of Reading*, Unpublished study, School of Education, Indiana University, Bloomington, 1955.

87.

metic reasoning. The average gain in arithmetic reasoning was that of 9 months, which was equal to twice the time spent in instruction. Twenty of the 45 pupils gained over a year during this period.

Results from this experiment indicate that paying special attention to reading and study skills does increase performance in arithmetic reasoning. They also indicate that, in spite of unreasonably large numbers, an enthusiastic and hard-working teacher can do more than a routine job of teaching.

Reflecting the great concern for individualizing instruction a number of teacher experimenters developed programs to meet this goal. These experiments fell into two different patterns. A few completely individualized their reading programs following the patterns so widely discussed in current literature. A more common approach was for the teacher to maintain group instruction with a reading series and, in addition, to schedule a definite time in the reading program for extensive, individual reading of children's literature and of material related to the topics studied in social studies and science. Usually included were the self-selection of reading material, conferences between individual children and the teacher, and individual records and reports of materials read.

Because it reveals rather dramatically the value of early extensive reading I am reviewing a study conducted by Mrs. Rowland[2] working with a group of second grade children. Of the 40 children in Mrs. Rowland's class, the 15 included in this experiment showed high ability in reading. Realizing that she might easily neglect this group, Mrs. Rowland was anxious to expand their reading beyond the basic reader. She was fortunate in having a wide selection of library books and reading texts of various levels in her classroom from which the children could select what they wanted to read. During the course of the experimental period the children:

Maintained chart records of the books read by club members.
Discussed their reading with other children.
Prepared three bulletin board displays.
Wrote and illustrated book reports and original stories.
Assumed full responsibility for checking books in and out.
Prepared a Christmas reading table.
Made a "Class Book" of each child's story and illustration of the "best book I've read this year."

The test re-test data using the *Gates Primary Reading Tests,* Type 2 (Sentence Meaning) and Type 3 (Paragraph Meaning) over a three month period gave eloquent testimony to the value of the program. On the re-test 9 of these 15 second graders could no longer be contained by the test as they had perfect or near perfect scores. It was obvious that the children had made a great deal of progress in reading. Mrs. Rowland, as did many of the other teachers with comparable studies, emphasized that the experiment had taken the place of much "seatwork" and that problems of classroom management were simplified. No longer were teachers plagued with the question, "Now that I'm finished with this, what am I supposed to do?" When a child is learning to walk he needs to walk, when learning to talk he needs to talk, and when learning to read he needs to read—not in little bits, but in great amounts. Apparently individualized, extensive reading provides a rather ideal opportunity for the child's needed practice in reading.

Although the course around which these experiments are developed is labeled "The Improvement of Reading in the Elementary School" a number of high school teachers enroll and develop experimental programs in their subject areas.

A real test of the developmental concept of reading is to raise the question as to whether the academically talented student can be aided by a definite concern for reading as he works in a subject area. Mr. Jenkinson,[3] a teacher of English, selected a group of 21 superior twelfth grade students enrolled in an elective literature class with whom to experiment.

[2]Janet Rowland, *An Experiment with Extensive Reading,* Unpublished study, School of Education, Indiana University, Bloomington, 1955.

[3]Edward Jenkinson, *Improving Vocabulary and Comprehension in the Senior High School,* Unpublished study, School of Education, Indiana University, Bloomington, June, 1955.

88.

The purposes of the class were twofold: to survey English literature from Wordsworth to the present and to acquaint students with various types of writers and writing—both European and American. Students were given freedom of choice in their outside reading, but were required to report on one novelist, one poet, and one playwright.

As the reading of literature continued, Mr. Jenkinson developed a reading improvement program. Particular attention was paid to skimming skills, comprehension, and vocabulary development. Class time was taken to discuss reading skills and assignments were developed that would provide for practice in skimming and in reading for different purposes at different rates. Vocabulary development was handled on an individual as well as a group basis. Students were encouraged to use a rich and varied vocabulary in their writing, and much was made of the effective use of words in discussing the works of the different authors.

Mr. Jenkinson evaluated the effectiveness of his program by administering different forms of the *California Advanced Reading Test* before and after the experimental period. He also had "before and after" data on reading rate. This group of superior students, while engaged in the study of literature, advanced 193 words per minute in their average rate of reading during the three month period. Their vocabulary gain was eleven months and the growth in comprehension was nine months. Mr. Jenkinson indicated that his students reacted very enthusiastically to his directions for reading improvement. The test data clearly indicated that the direct teaching of reading skills as they relate to a subject area is beneficial even for students who ordinarily are considered excellent readers.

In relation to the topic—"Building More Effective Reading Programs Through Teacher Experimentation," I have personally reached three conclusions:

1. It is no dream, it can and is being done.
2. There is no single, simple formula for improving reading by teacher experimentation. The task can be approached in many different ways as long as the teacher is creative and enthusiastic.
3. Judging from the number who have bothered to tell me, once a teacher starts experimentation he tends to keep on doing it.

89.

30.



that the development of interest in and taste for *good* literature is one of the most important purposes of the elementary school program; that fine literature is the rightful heritage of children; and to delay their association with it is to deprive them of memorable experiences that are as essential in the total growth pattern as are food, shelter, and other necessities. Many of us are fortunate in that we work in schools with remarkably well-equipped libraries, with well-trained librarians, and with administrative officials genuinely committed to the improvement of the library. We are further blessed in that we have the opportunity to observe and work with classroom teachers who know books, children, and how to bring them together joyfully!

Having grown accustomed to this lush environment, I found it quite a shock to read "Schools Without Libraries: Our National Disgrace." This article, which appeared in the November, 1964 issue of *McCalls,* was prepared by Francis Keppel, then U. S. Commissioner of Education. The facts revealed seem incredible; for example, Keppel points out that "in 60 per cent of our nation's elementary schools, attended by 10 million of our children, there are no school libraries. And in 84 per cent of our schools there are no librarians." If you have not read this article, I urge you to do so; it will help to explain why the current efforts to improve the library conditions must receive our fullest cooperation. The future is beginning to look much brighter, but I have every reason to assume that the quantitative and qualitative effects of future aids and grants will depend in the final analysis upon the personnel of individual school units. No doubt a little soul-searching will prompt us to admit that that is where much of the responsibility rested all along; that we have in most schools resources seldom used *properly*—if at all—to improve the quality of the literature program. Let us face the fact that until we help classroom teachers learn how to use these hoped-for quantities of new books and materials effectively, the results are going to continue to be largely quantitative in nature.

A realization of the importance of the above statement was brought home to

## 2. The Role of Supplementary Readers in Children's Literature

ALMA MOORE FREELAND
University of Texas

I AM SURE THAT most people concerned with the growth of children believe

90.

me during the preparation of this paper. I decided to appraise the quality of the preparation of my own group of student teachers in regard to their understanding of the purposes of, and their skill in using, several supplementary readers. I chose the readers which appeared to have definite possibilities for enriching the literature program for children in the elementary school. The experience left no doubt in my mind that the teacher education institutions have a definite responsibility in the upgrading of the elementary school literature program. Since my student teachers are seniors, they have had the required course in children's literature. Consequently, I decided to initiate the activity with questions that related to the knowledge, concepts, understandings, and skills which they had brought from the course in children's literature. Using this as the basis for our appraisal, we examined the readers to determine their over all and specific potential as a resource for teachers to use in guiding children's interest in and taste for good literature. The compiled results of this informal sampling revealed that the role of supplementary readers in children's literature is significant; it includes helping the teacher to attain the following goals:

1. *Balance the reading program.* Since basal readers are not designed to afford sufficient emphasis, practice, and materials to insure a well-rounded reading-literature program, teachers soon learn that opportunities extending beyond the basal program must be provided if children are to acquire sequence and continuity in skills, habits, attitudes, knowledge, and appreciation of good literature. Normally, the teacher expects to turn to the library for resources necessary for insuring a well-rounded literature program. But we know that the library as a resource is often poor or nonexistent. Consequently, resourceful teachers soon find help in supplementary readers. Let us examine a specific sixth grade reader and evaluate its potential as a guide for teachers who are planning a well-balanced literature program. We found that it contained a generous distribution of poetry and prose; that there was a fine balance in respect to realistic and fanciful selections; that the content represented the following types of literature: (1) contemporary children's everyday experiences, problems, hobbies, and interests; (2) selections from the literary heritage—fables, myths, legends, folktales; (3) humorous and fanciful tales from the new magic; (4) historical selections; (5) biography; (6) selections about other lands and people; (7) expository material relating to science (and space), geography, and related social sciences; (8) art, drama, and similar areas. We concluded that the possibilities for using this text to supplement the content for the literature program were most encouraging. Since literature has such diversity of content, it is important that children have a chance to develop an interest in its many specialized areas of knowledge. The supplementary readers which we examined showed great promise for helping teachers guide children's experiences in and with the many varieties of literature.

2. *Provide material of high literary quality.* A glance at the table of contents of the above-mentioned sixth grade reader (and any other good supplementary reader which we examined) will be sufficient to reassure the most discriminating critic that the authors, illustrators, and selections represent the highest literary quality. For example, we found such distinguished writers of children's literature as Robert McCloskey, Robert Frost, Marguerite Henry, Walter de la Mare, Eleanor Farjeon, Elizabeth Coatsworth, Robert Lawson, Armstrong Sperry, and Stephen Vincent Benet. Then to top it off there were those incomparable geniuses with words and ideas—Hans Christian Andersen and Kenneth Grahame. Any knowledgeable teacher knows that this type of material will provide exciting and stimulating experiences for children. If children are to develop a taste for *good* literature, they must become acquainted with it very early in life. From years of observation, I myself have concluded that there are few experiences more valuable to children than those which include opportunities for reading and listening to great books. A supplementary reader that makes this type of material available to young learners is

91.

making a definite contribution to the literature program in the upper elementary grades. Furthermore, even in the absence of a *good* library, I do not think we should become too discouraged as long as there is a great teacher ready to use these great books with eager young minds. An enthusiastic, understanding, perceptive teacher can lead children to enviable heights with just a few good books. Although we must not minimize the need for many available books, let us also not forget that a few great books properly used may bring about lasting results in the minds and actions of young readers.

3. *Satisfy children's interests.* We are constantly reminded not to underestimate the subtle power of interest to strengthen reading skill, to stimulate reading habit, and to foster appreciation for reading as a way of life. If supplementary readers had no other purpose than to help children establish lifetime interests in reading, this value alone would justify their use in the curriculum.

The Teacher's Guide gives many suggestions to help teachers capitalize upon the need to satisfy children's interests. Many of the guides which were examined for this study showed that the criteria for the selection of stories and poems included areas of interest such as exploring; discovery; science—including space; nature, animals, and other equally important interests. Attention was given to the special interests of both boys and girls.

Of course we must not ignore the fact that interest in the selections is attributable in no small degree to the way they are presented as well as to the type of subject matter they treat. The teacher's own enthusiasm also has a way of generating interest. It has been clearly demonstrated that the association of reading with interests is a very satisfactory way to heighten motivation and promote learning. Attractive illustrations also serve to increase interest in reading.

4. *Fulfill children's developmental needs.* The teacher's own depth of perception and insight will determine the effectiveness of the supplementary reader in helping to meet the developmental needs of the individual children who use such books. It is unmistakably clear that the selection of content in several of the readers had been made with children's developmental needs in mind. We found in the readers that recognition was given to the need for security, for love, for belonging, for achievement, for change, and for aesthetic satisfaction. The need for achieving satisfactory peer relationships was illustrated in a number of selections. A splendid example was found in a fifth grade reader in the episode from "The Hundred Dresses" by Eleanor Estes. The need for achievement was effectively presented in selections from a fifth grade book. They included "First Under the North Pole" by Commander William R. Anderson, "Four Silver Pitchers" by Ann Weil, and the poem "Lewis and Clark" by Stephen Vincent Benet. In a fourth grade reader we found excellent examples of stories selected to meet the need for change, recreation, and play. Ellis Credle's "The Bear and the Wildcat" is typical material to meet children's need for laughter and release. Eventually the student teachers began to see that most if not all of the selections had been chosen by the authors of the supplementary readers to illustrate one or more developmental needs. I think it was at this point that these future teachers began to better understand the purposes and possibilities of this type of resource material. The books began to take on more importance and to grow in "value," as it were.

5. *Meet individual differences.* Supplementary readers are particularly effective in helping teachers recognize and provide for individual differences by guiding each child to realize his full reading-literature potential. The teacher who observes closely and records interesting and pertinent data concerning the individuals in her class is often able to determine the best course of action to follow in guiding growth and development in all areas including interest in and taste for good literature. The varied and balanced content of the readers will enable her to meet a variety of interest needs. The Teacher's Guide contains many suggestions for activities that can be used to meet differences among children. The materials and activities in the

guides are capable of interpretation on varied levels and hence are appropriate to use with a class of pupils of widely varying ability. Furthermore, suggestions for enriching and extending reading experiences are provided in some books at the end of each story and unit in addition to the material prepared specifically for the teacher. The bibliographies provided for children's use will save time for busy teachers who want to guide the reluctant, average, and able readers in selecting appropriate materials to meet their individual needs.

6. *Extend experiences with literature.* The effective *use* of supplementary readers will give many opportunities to enrich the literature program. Most of the books we examined contained suggestions for such enriching activities as story telling, dramatization, oral reading of prose and poetry, creative writing, including plays, diaries, and poetry, and reports and other expository writing. Correlation with art was suggested; the development of listening skills to insure fuller appreciation in story telling and other sharing activities was emphasized. Indeed, there was a wealth of help available to stimulate the creative teacher in her effort to give an extra "dimension" to the literature program.

Since the content of the supplementary readers often contains expository writing as well as fiction relating to science and the social studies, this opens the door for effective correlation of literature with the activities involved in these areas. Biography, historical selections, and scientific explanations and descriptions included in the readers can stimulate interest in the content subjects. Although literature should never be employed for the purpose of providing instruction in subject matter, it can serve splendidly in supplying additional information, giving breadth to concepts, and depth to appreciations.

7. *Enrich and increase vocabulary.* The proper use of supplementary readers will also include fostering the development of concepts for general and specialized vocabularies. Since the effective use of this material presupposes careful guidance on the part of the teacher, it can be assumed that supplementary readers *can* play a big part in vocabulary development. In the examination of the Teacher's Guides, it was gratifying to find that special attention had been called to the need for teacher guidance. Since a child's depth of understanding of a selection depends upon his knowledge of the meaning of words, it becomes an important responsibility of the teacher to provide opportunities for growth in this area. Furthermore, since vocabulary plays an important part in an author's style of writing, it was good to see that considerable attention is given to suggestions for developing activities in this important aspect of reading and literature.

8. *Foster development of special skills and competencies.* The development of interest in and taste for good literature cannot be gained incidentally or simply left to chance, for children do not acquire the ability to interpret and to fully enjoy good literature by sheer exposure to it. Every teacher should provide a definite time every day for literature. This will include time devoted to instruction in literature and to the many activities that will increase children's participation in and capacity for enjoyment of good literature. Of course, literature instruction differs considerably from instruction in other areas. The alert teacher will recognize the contribution which supplementary readers can make in the literature program; she will also know that the potential of this type of material will not be fully realized unless she provides time for careful planning and guidance. She must not expect children to gain desired competence in interpretation of literature from a casual use of supplementary readers; the results will be in proportion to the guidance which is provided. Specific suggestions are included in the Teacher's Guide to encourage teachers to use their own creative ability in helping children develop the competencies that will insure their enjoyment of literature. In some of the series of supplementary readers, suggestions were given for insuring continuity and sequence in the development of these necessary skills, habits, attitudes, concepts, and understandings. Guidance in this instructional phase of the literature program is mandatory; but the techniques



will result in depth and breadth of interpretation, not to mention the ability to enjoy and appreciate good literature. Among these desired competencies are critical and creative reading skills, such as the ability to follow a sequence of events, to predict outcomes, to follow the author's pattern of the story, to interpret figurative language, to identify with the characters, to read between the lines, to recognize the beauty of words, and to create mental images which the words stimulate. Year-to-year practice in this type of guidance will usually pay tremendous dividends to the teacher as well as to the learner. The supplementary readers can help to provide this essential type of experience.

31.

Vol 9., 64

# SEQUENCE XI PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION

## A. ELEMENTARY SCHOOL

### 1. Meeting the In-Service Needs of Elementary Teachers in Reading Instruction

HELENE M. LLOYD

THE New York City school system is huge. It enrolls more than a million students—only five cities in the United States have more *people* than we have pupils. Our staff numbers 40,000 professionals—a city's worth of people.

The Elementary Division of our school system is huge, too. In kindergarten through grade six we have more than 600,000 children—outside of New York City there are only 13 cities in America with more people than we have boys and girls who are trying to learn to read. These children are in 580 elementary schools, staffed by 20,000 professionals.

Bigness of an educational system brings with it honor—but also problems. How do you get 20,000 professionals to agree to something, to pull in the same direction? How do you lend administrative and supervisory direction to so many people simultaneously? Why, to mail even one letter to them costs a thousand dollars in postage alone!

The answer: *in-service training*. Only by massive in-service effort, with the utmost coordination, can a school system lift itself up by its own bootstraps. Four years ago, New York City's elementary schools pinpointed reading as the area most needing improvement; for four years, then, we have been exerting massive in-service effort in this direction.

#### Metropolitanitis

Our in-service bootstrap operation in behalf of better reading has been burdened by some unique problems, every one of which underscores the urgency of having a massive in-service program.

1. *We are a city of tremendous teacher turnover.* During 1962-63, the median length of service of our elementary teachers was seven and a half years. In 1962-63, our 20,000 professionals at the elementary-school level included 5,000 newly-appointed, beginning teachers. This year, 1963-64, we feel we have made a great gain. Of our 20,000 professionals, "only" 4,000 are newly-appointed beginners!

2. *We are a city where children "live on wheels."* In the borough of Manhattan, the average mobility of the elementary school population is 51 per cent (that is, slightly more than half the children end the school year in schools different from those they enter in September). You can see, then, why changes in instructional patterns must be consonant throughout the city; one school by itself cannot turn back the tide.

3. *We are a city with many socially-disadvantaged children.* The need for these children to learn to read is real, is urgent, both to themselves and to society. The urgency is increasing, too, for those of whom the need is characteristic are moving in ever-inreasing numbers to our city.

4. *We are a city where many children are non-English speaking.* Of our 600,000 elementary school children, one out of every eight is non-English speaking. Meeting the needs of these young Americans involves special teaching abilities and procedures; new teachers usually lack the special preparation such situations call for, and the only answer we have is: in-service training.

5. *But we are also a city with many highly capable children whose reading needs are different.* These needs must be



94.

met, too, and this is sometimes difficult for a teacher when her focus has been concentrated on the average and below-average learner. Only by in-service training can we maintain balance in meeting the reading needs of children at the upper end of the talent scale, too.

## The New York Action Program

To overcome the hurdles to reading instruction indigenous to any large city and to overcome particularly the unique ones that I have specified, New York City developed a six-prong "Action Program." The individual aspects cannot be ranked in any order of effectiveness, for each reinforces the others and draws reinforcement from the others.

*Action 1: Reading improvement has been given top priority at the supervisory level.* For each of the past four years, the principal of each of our 580 elementary schools has had reading improvement as his major objective for the year. He has iterated the supervisory procedures by which he has planned to move ahead the school's program of reading instruction. These procedures are, of course, in-service training at the functional grass-roots level. Our supervisors have themselves participated in special courses, workshops, and conferences to enable them to increase the effectiveness of their in-service effort in behalf of better reading.

*Action 2: Reading instruction has been reinforced by a taskforce of special reading personnel.* Some of these specialists teach reading, but most of them concentrate on helping the regular classroom teachers increase their own effectiveness.

One category of specialist is that of *Reading Consultant.* Each of our twenty-five area, or district, offices has a Reading Consultant who works under the direction of the district field superintendent in schools that he selects.

A second category of specialist is the *Reading Improvement Teacher,* one of whom is assigned to almost every elementary school in the city. This specialist assists other teachers—especially newly-appointed teachers in grades one, two, and three—by giving demonstrations, by helping them in the preparation of lessons and materials, by assisting in the measurement of children's reading needs, and in many other ways.

A third category of specialist is the *Corrective Reading Teacher,* one of whom is assigned to about half our elementary schools. The Corrective Reading Teacher meets with small groups of children who need corrective instruction, but she also devotes not less than 20 per cent of her time to working with the newly-appointed teachers in grades four, five, and six.

A fourth category of specialist is the *Reading Counselor* who works in one of our eleven Reading Clinics. As you would expect, the reading clinic staff members are frequent speakers at neighborhood faculty conferences where they perform richly an in-service training function.

I also want to underscore the name of a fifth category of specialist, even though the word "readi..g" does not appear in their titles. I refer here to the supervisors of our schools—the principals and assistant-to-principals who, in order to fulfill their responsibility for their own school's improvement of reading achievement, have taken courses, have conducted experiments and pilot projects, have lead study groups, and in many additional ways developed themselves into *bona fide* reading experts.

*Action 3: The formal increment in-service courses in reading methodology have been strengthened, publicized, and brought into new effectiveness.* Would you believe that 8,000 teachers simultaneously enrolled in a reading improvement in-service course? This occurred. We cooperated with our state department of education in conducting a television in-service course on "The Teaching of Reading in the Primary Grades." There were 15 telelessons of 30 minutes each, with each telelesson followed by a 50-minute workshop conducted by a principal, assistant-to-principal, or member of the reading task force. The program was supported by a study-guide booklet that had been prepared for the occasion, as well as workshop guides for each leader. Following this course, a similar one on "The Teaching of Reading in the Intermediate Grades" attracted 6,000 enrollees. We have repeated these courses for additional teachers. The kinescopes of the broadcasts

have been available for many faculty meetings.

In addition to the television in-service courses, many other standard in-service courses for increment credit have been sponsored by the Elementary Division, as: "Supervision of a Reading Program," "Diagnosis and Treatment of Reading Disabilities," "Individualized Reading," and the basic course—"Materials and Methods in the Teaching of Reading." We estimate that 18,000 of our 20,000 teachers have taken one or more reading-methods courses in the past four years. This is what I meant previously by "massive" in-service effort!

*Action 4: We have utilized the collegiate talent in and around New York City through the establishment of the Reading Academy of the Elementary Division.* This is a group of 125 college reading specialists and members of the city school staff who meet regularly to discuss problems relating to reading improvement, to arrange cooperative studies, to report on projects and research, to try new ideas "for size," to help one another analyze problems, and in other ways to share experiences for mutual benefit.

A second result of the reaching, welcoming hand has been the establishment of the *Campus School Program.* In this program nineteen colleges have selected two or more elementary schools to use as centers for directed observation, student teaching, research studies, pilot projects, and innumerable other activities. Some of our finest strides in reading improvement are the handiwork of young teachers whose *pre-service* training included participation in the Campus School Program.

*Action 5: We have published the aids needed to fit our in-service needs.* Every city has unique problems for which the standard answers are inadequate; New York City is no exception. Because we have the talent on which to draw and the resolution to draw it, we have published a number of aids to implement the in-service needs of our elementary teachers.

I mentioned previously that we published the course guides for our television in-service courses. To these I should add our recent booklet, *Sequential Levels of Reading Growth,* in which all the skills



by sequence and level so that the class- must precede the successful introduction of reading.

room teacher knows "what to teach next." We have supported this publication with a folder, called the *Reading Record Card,* which is designed to chronicle the progress of the individual child. Our pilot use of the card excites our optimism not only concerning the classroom usefulness of the card but also concerning the use of this device as an antidote to our mobility problem. We have also published two issues of a training aid entitled, *Teaching 600,000 Johnnys to Read,* in which teachers are given answers to such basic questions as "What is the place of phonics in the reading program?" "How should the basal reader be used?" "When and how should the alphabet be taught?"

In addition, we have been able to obtain and make available for conferences kinescopes of all our television programs. We have also produced two motion pictures that have been widely used in in-service reading courses even though they were designed for use in parent meetings, "Bienvenidos" and "The Parent's Role in Reading."

*Action 6: We have consciously involved many of our teachers in research projects.* These range from matters as technical as the use of the mirror in correcting instances of mixed dominance to matters as basic as alternative methods of using audio-visuals in support of reading instruction. Our projects are often oriented to reading problems even when the overall purpose may be broader. Our study involving team teaching, for example, includes heavy stress on reading improvement; and our projects in programed learning touch on all areas of the curriculum but particularly on reading.

One of our projects is still modest but has already received considerable national attention: a study of the possibilities of preschool training for socially-disadvantaged children. Working with children of four and five and their parents, we are undertaking to provide a reading-readiness background for children whose home environments are unlikely to provide it. We work for auditory and visual discrimination, concept formation. language development, vocabulary enlargement, basal experiences, and many other factors that incident to learning to read are classified

## In Summary

When you have 600,000 children, when your leaders and associates are dedicated educators, when a need—in this case, for reading improvement—is incontrovertibly defined, you take action.

At first glance, each of the problems I defined at the outset—our teacher turnover, our pupil mobility, our numbers of socially handicapped, our one-in-eight non-English speaking children, our incredible range of abilities—seems insurmountable.

But when you dare to define publicly the depth of the need, when you dare to demand the wherewithal for counteraction, when you rally around you the forces that can be rallied, then no problem is insurmountable. We have a long way to go in New York City; but we are moving, and upward. We lack many answers in New York City, but we are learning answers that we did not know existed.

Vol.7, 62

32.

# 4. Evaluation of Professional Texts in Reading—Elementary

195'

JOHN MANNING

Two statements of professional opinion relating to existing elementary school instructional practices seem relevant to the purposes of this presentation.

The first excerpt is quoted from *The Torchlighters: Tomorrow's Teachers of Reading,* a detailed summary of reading practices in the public schools.

> In the opinion of 84 per cent of these respondents (participants in the Harvard-Carnegie field study) much of the reading instruction in the local schools is neither consonant with theoretical concepts advanced in the college classroom nor in accord with what research findings indicate as most effective in teaching children to read.

The second observation is contained in a monograph, *Organizing New York State for Educational Change* a study supported by a grant from the Ford Foundation of the dynamics of instructional change in the public schools.

> The elementary and secondary schools act for themselves. Few specific instructional programs in these schools can be traced directly to college or university interest.

These concerns, coupled with the more aggressive lay opinions expressed in such books as Walcutt's *Tomorrow's Illiterates* and Trace's *What Ivan Knows that Johnny Doesn't,* lend more than casual support to the widely publicized belief that improvement in reading instruction for the children in our public schools is imperative. This demand for improved reading services should not be minimized; a society which vigorously seeks to improve its educational services is clearly preferable to a dormant one. It is necessary that there be dissatisfaction with present methods of teaching reading, not because those methods are inadequate but rather because those methods could be more adequate.



In a restricted sense, the topic of this presentation, "Evaluation of Professional Texts in Reading" could be interpreted as an analysis and contrast of existing philosophies, psychologies and methodologies as expressed by textbook authors in the field of elementary reading instruction. A more significant interpretation, however, would appear to lie in the area of evaluating the professional text as currently used in the undergraduate and graduate reading methods courses.

This presentation, in its later concerns, will be directed toward both points of interpretation.

The development of the professional text parallels, and to a certain degree reflects, the evolution of reading instruction in American schools. Nila Banton Smith (*American Reading Instruction,* New York, Silver Burdett and Company, 1934) suggests that the professional text as we know it today first appeared during that historical period when reading instruction was directed primarily and almost exclusively toward aesthetic appreciations in classical English literature. Texts such as Scudder's *Literature in the Schools* (1888), and McMurray's *Special Method in the Reading of Complete English Classics* (1889) were among the first to emphasize not only the "what" of reading instruction, but to a limited degree the "how" of it. It is interesting to note, however, that quite early in its development the professional text was refined by a more scientific presentation, *The Psychology and Pedagogy of Reading* authored by Huey in 1908. This text is still considered a standard reference in the field.

As reading instruction was directed toward more utilitarian objectives, the professional textbooks stressed more practical uses of reading and emphasized the acquisition of silent reading skills. Texts such as O'Brien's *Silent Reading with Reference to Speed* (1921), Germane and Germane's *Silent Reading, A Handbook for Teachers* (1922), and Watkin's *How to Teach Silent Reading to Beginners* (1925), were extensively used. Primarily under the influence of Frances W. Parker, the Froebelian principle of meaning as applied to the uses of reading was widely accepted and practiced.

As with most educational processes, these extremes—reading for cultural appreciation and reading as a utilitarian process—were resolved in objectives which embraced both. These broadened objectives in reading instruction differentiated the reading process as to purposes and defined certain skills as appropriate to certain educational tasks.

These broadened objectives in reading were reflected in many excellent texts appearing after 1925. Authors of such stature as Terman, Gray, Yoakam, Dolch, Gates, Patterson and Smith wrote texts of wide influence and significance in the field of elementary reading instruction.

Certainly within the last decade the complexity of educating for tomorrow's world, the serious lag between technological and educational achievement and the disturbing realization that yesterday's schools, materials and methods cannot optimally serve the learning needs of today's children have impelled a renewed emphasis on better professional texts for the better teaching of reading. Within the last ten years no less than thirty new editions or revisions have been published in the elementary reading area.

Professional textbooks can generally be classified into four main types:

a) Texts which emphasize the philosophy and/or psychology of teaching reading.
b) Descriptive texts emphasizing methodology, principles and examples.
c) Remedial reading texts which treat the educational causes of reading disability; diagnosis and prognosis.
d) Remedial reading texts which are concerned with emotional, motivational, neurological and psychological bases of reading disability.

Most often these texts are employed in college and university courses and are

97.

chosen by instructors on the basis of their suitability to the learning needs of the students who will use them as well as for their compatability with the particular philosophy of the professor.

Some commonality exists among these different texts, especially in the area of "definition of terms" and sequence of "skills to be taught;" most have common "goals," "objectives," "principles." Wide differences exist, however, in specific "methodology" and "grouping patterns for instruction."

Clearly some of these texts are particularly suited to undergraduate needs while others require more sophisticated use. It must be admitted, however, that the choosing of a textbook is less dependent on the type of professional course and more dependent on the training of the professor who teaches the course.

The dominant role of the fifteen chapter professional textbook in the reading methods course is a matter of accepted fact especially in the undergraduate preparation. This role interpreted in the light of the conclusions of the Harvard-Carnegie Study and the New York State Educational Change Study, which were cited previously, provides ample basis for evaluating the professional text as an effective instrument of professional preparation.

No one would propose that "the" professional text should constitute the total reading methods course; additionally, however, it cannot be disputed that in all too many instances, it does.

In evaluating the professional text as an effective promoter of sound educational practice, two strengths are readily apparent; the professional text provides an orderly and systematic approach for the preparation of reading teachers. Secondly, the professional text provides the best available means of informing large numbers of teachers of procedures to improve reading instruction practices. On these contributions alone the continued use of professional reading texts in teacher education courses seems justified.

It is much easier, of course, to discover or at least to suspect certain weaknesses in the design and content of the professional text; any school failure precipitated by teacher ignorance could, by *reductio ad absurdum,* be directly traced to inadequacies of the professional text. Less facetiously, weaknesses do exist.

Generally, professional texts are oriented, as are basal readers, toward instructional procedures for a certain segment of the population; especially inadequate are procedures for teaching reading to culturally different children such as the Puerto Ricans in New York, the Negro pupils of the South and metropolitan North, and the children of migratory workers in California.

Likewise inadequate, though steadily improving, are suggestions of programs for accelerated readers. There appears, too, a definite emphasis, perhaps overemphasis, on primary reading skills and applications. Additional elaboration seems needed in relation to reading in the content areas. More attention also needs to be devoted to the study of the phonetic elements of the English language. Though ordinarily taught in the speech arts area, recent research in the reading area, especially studies relating to auditory discrimination by Wepman and Durrell, highlight the need for a more precise knowledge of phonetics. Most needed of all, however, is the need for defining specific organizational patterns and suggested techniques for instructing various ability groups in the self-contained classroom.

This critical element, it is here proposed, requires laboratory experiences for implementation. The theory-practice relationship is not adequately resolved by existing professional texts nor, perhaps, can it ever be.

To a degree, it might be argued that specific methodologies might more effectively be learned through the use of teachars' manuals which accompany basal reading programs. Indeed some authorities are emphatic in their insistence that the methods courses are too "methody" now—that education courses and courses of study should be directed toward more foundational or philosophical objectives leaving the techniques instruction to the public schools. Henry Brickell, writing in *Organizing New York State for Educational Change* gives this incisive and realistic appraisal.

> Teacher educational programs, according to the people who staff them, do not attempt to equip the prospective teacher with specific instructional techniques, but concen-

> trate in developing a general professional wisdom out of which he can develop the specific techniques he needs for any given task. Actual instruction in specific techniques is said to be the responsibility of the schools which employ the college graduates. . . . College faculty members said that specific methods will be learned by the new teacher on the job. Those skills are left to be taught to him by the schools where he works—a responsibility which most local schools patently are unable to meet.

Clearly, the theory-practice problem is a most significant concern of both the undergraduate and graduate reading methods course instructor. The search for procedures to overcome this problem is the concern of the educational researchers, the publishers of commercial reading materials and the authors of professional reading texts. The more efficient use of the professional text as that text contributes to the improvement of services to the reading needs of children in public schools is a critical issue in this search.

It is the use, or misuse, of the professional text which requires serious and critical appraisal. The lecture-recitation method of instruction underwritten by assigned readings in the textbook cannot be further justified. This method of collegiate preparation has proved inadequate to the needs of the teacher candidate and ultimately to the learning needs of the pupils that candidate will teach.

As education moves to a more enlightened behavioral science, more functional laboratory experiences will be included in the professional preparation of the reading teacher. Especially in the techniques area, where existing classroom learning situations afford opportunities for both observation and participation by teacher candidates, the professional text can assume a more functional role, a more influencing position.

The professional text in this context would be used primarily as a reference manual. It would include clear developmental plans stressing grouping procedure to be used with existing basal materials. The text would present organization patterns for different ability groups with suggestions as to how those patterns could be implemented in the self-contained classroom. These more practical concerns would be supplemented by readings in the philosophical and psychological areas. Neurological and physiological areas of study would be reserved for the graduate program.

No professional text can possibly serve all the needs of teacher candidates or teachers-in service. Ideally the professional text should provide a sound understanding of the process of reading. It should contain that body of accepted knowledge which, if applied, will result in successful reading programs in our elementary schools.

The objective of all teacher education programs and the purpose of all materials used in those programs is the teaching act in a classroom. The professional text is but one of those materials.

Research efforts will continue to find better methods and procedures to teach children to read with more efficiency, ease and appreciation. Commercially prepared reading materials will offer new ideas and suggestions. Individual teacher ingenuity and creativeness will produce materials and plans for specific classroom situations. These new knowledges also must be incorporated in the professional education of the teacher.

33.



## 2. Helping Teachers of Reading Meet the Special Needs of Children

GRACE MCCLELLAN
Child Guidance Clinic of
Greater Winnipeg

THE TASK OF trying to help teachers to improve the learning situation of the disabled reader presents a very great challenge. Pressures are almost overwhelming to provide more learning faster and at an earlier age. Because knowledge and understanding of factors which operate to inhibit a child's progress at school are often limited, an increasing responsibility is placed upon the reading specialist to provide necessary assistance to teachers in meeting problems in learning to read as they arise from day to day in the classroom. The purpose of this paper is to discuss some of the ways in which the reading specialist or consultant is able to work with teachers in her area in an effort to bring greater insight and understanding to the task of teaching the disabled reader. This work is done in several ways:

(1) As a clinician and therapist, the consultant sees youngsters who are referred to the clinic from schools, parents, doctors, and welfare agencies for diagnosis and, in a few cases of severe disability or where continued diagnostic procedures seem to be advisable for a period, for treatment. She consults on the cases with other clinical workers such as the psychologist, the speech and hearing therapist, the social worker, and the psychiatrist, to assist in working out appropriate plans of treatment. As a clinician, she is responsible for interpretation of the diagnostic findings to the appropriate school personnel or other referring agency.

Information is coordinated from home, school, and other disciplines involved in the case. School personnel are encouraged to share in discussions of the findings so that a better understanding of the child and his problems is effected. The reading clinician may then work out a program of remediation with the classroom teacher, suggest alternate procedures for teaching, and possibly introduce different and more appropriate materials for classroom instruction. A different kind of grouping procedure may be suggested which will more readily enable the teacher to deal with the situation within the classroom environment. Often the child may have to be dealt with as an individual, even though he is a member of the group, and the teacher may need help in handling this problem. Such cases will be followed up by the clinician and progress evaluated from time to time, with possible modification or termination of the special program as is indicated.

(2) A second way in which the consultant works with teachers is by consultation on cases which are probably less severely disabled but, nevertheless, in need of special assistance. The teacher in such cases will make a direct request for help. The consultant may then make a visit to the school to discuss the child with the teacher in relation to the special problem. For example, help may be needed with a child who at first was considered to be on the dull side because he was not coping with the daily program. He did not complete his assignments. He was apathetic. In discussion with the teacher it was learned that the child suddenly came alive during discussion of science projects. Responses in class discussion were superior and he performed well in arithmetic computation. Closer observation of his behaviour indicated that, far

100.

from being dull, this boy might actually be very bright, and he might be suffering from boredom and a lack of motivation. Confirmation of his superior ability was given by the school psychologist when he was called in to further clarify the situation. Under the direction of the consultant the teacher was encouraged to administer a few standardized tests in order to get a measure of achievement which would confirm or clarify the teacher's more subjective estimate of the boy's ability to read.

A special program of remediation was planned for this boy to make use of his special interest in science. A new attitude, created by new understandings about the boy, plus the special positive attention he was receiving, seemed to do wonders. It was not long before he was able to function well in the top group of his class rather than at the bottom.

This type of program gives the teacher some help in meeting the needs of the less severely disabled or the child whose difficulty is corrective in nature. Hopefully, what she learns about evaluating actual levels of achievement, looking for signs of better functioning ability, selecting appropriate remedial techniques, materials, etc., will carry over to her dealings with other children.

(3) Another task of the consultant has to do with the training of a group of remedial teachers selected to service schools in the different areas. Educators in the district have long realized that the clinic cannot diagnose and treat all the disabled readers, and so many have agreed to a plan to select competent teachers who can be trained to handle a majority of the reading disability cases to be found in their respective districts. This method has been done in cooperation with the clinic which has agreed to assist in in-service training and to undertake a limited amount of continuous supervision of remedial reading programs. There are two types of special remedial reading programs being conducted. In one type of program the remedial reading teachers, following some initial training, become virtually an arm of the reading department of the clinic, take their case load from the clinic, and are closely supervised in the treatment program. In the second type, remedial teachers have limited supervision because of the lack of facilities available for supervision. The case load in this latter case is controlled by guide rules worked out in conjunction with district supervisors. It was realized that fairly firm guide rules needed to be laid down else there was a danger that children who are essentially slow learners or retarded and not actually underachieving might find themselves in the program. Teachers are ever the optimists and always hopeful that with extra pressure little Johnny will learn to read better. This points out another task of the reading specialist—that of helping teachers to learn to differentiate between slow learners, retarded children, and underachievers, the underachiever being the child who is not achieving as well as one might expect he should be doing in view of his intellectual ability. The underachiever is the child who is in need of remedial teaching. The consultant, however, must provide help to the teacher in adjusting her program to the different rate of learning of the slow learner.

Since specialized training in the teaching of reading is not readily available in this area, clinic personnel have taken on a responsibility to help out with this necessary training as much as possible. Hence special workshops in remedial reading have been offered during summer periods. Reading teachers coming newly into the "program" have been able to take advantage of these workshops to gain some specialized training. Such workshops provide a reasonable introduction to remedial programing but in themselves cannot suffice as a means of training. Workshops need to be followed by regular in-service programs in order to reenforce learnings, to clear up difficulties which arise, and to keep abreast of new ideas. But as well, whenever possible teachers need to be encouraged to go to outside centers of study for further training.

For those who are learning on the job, so to speak, a week-long institute is usually planned for early in the new year before the remedial reading teachers have really settled into their tutoring programs. These are arranged in school time since the teachers do not register classes and

are held on half days only, leaving the other half day free for the preliminary investigations which must take place in the school before a remedial program gets under way. During the year, monthly in-service meetings are held. These involve activities such as the study of a new professional text on reading, an examination of different ways of improving comprehension skills, or possibly an analysis and evaluation of some new tests with an investigation into the purposes for which each can be used. In addition, regular consultation periods are set aside for each teacher during which she may receive help with the special problems pertaining to her area.

Study sessions are intended to stimulate understandings concerning the development of reading skills through examination of possible causes of reading disability, through study of formal and informal diagnostic techniques and materials, through analysis of various approaches to the improvement of word recognition skills, and through investigation of ways and means of improving comprehension and interpretive skills. Materials for independent reading as well as for additional practice of skills are readily available for examination. A good professional library permits more serious study of particular aspects of the reading program.

Better results seem to be achieved when the remedial reading teacher is able to work closely with the classroom teacher. In fact, the two must work together in the search for a successful solution to a child's learning problem. Ideas can then be exchanged and new materials tried out. Parents need also to be kept in the picture; for when parents understand the objectives to be achieved and the procedures which are being used, greater cooperation exists and the prognosis for success is much more certain.

A main objective of in-service programs is to increase knowledge and make the performance of teachers more effective within the school system. In pursuance of this goal in-service must be continuous, not only because evaluation of present practice needs to take place but also because of the fact that if we are to meet the demands of today's society, teachers and educators must keep up with research findings, consider their relevance to present practice, and be willing to incorporate what has proved worth while into the reading program. In reaching this objective, demonstrations have proved effective in helping teachers to accept new ideas and use them in their own programs.

Experience suggests that it is important not to try to accomplish too much too soon. A useful procedure with individual groups has been to present an overview or pattern of the various factors involved in a good remedial program while looking ahead to a series of programs which will concentrate one at one time on smaller or individual aspects. For example, early next fall a group will take part in an institute which will look at testing, considering selections for specific purposes and how to analyze the results in order to obtain information which will assist teachers in planning for remedial treatment.

To avoid having in-service programs become a chore and, therefore, not very productive, it is sometimes wise to arrange that sessions are not always held during the teachers' so-called free time and that the teachers are encouraged to participate in the planning. In one district it was arranged that, after an initial session which introduced the teachers to some of the important factors involved in remedial teaching, subsequent programs should be held during periods in which teachers were free because their classes would be taken over by other subject-matter specialists — *e.g.* French, art, music, and physical education.

Support from administration is essential in any successful venture of this kind. Indeed it is to be desired that the whole team — superintendent, school principal, elementary supervisor, classroom teacher, remedial reading instructor, and consultant—will share a common objective in the active search for improved methods of helping the disabled reader become a much better reader.

The key figure in the whole situation is the teacher who has basically a warm acceptance of the child as a human being of worth; who discovers his strengths and weaknesses, and adjusts her instructional program according to his various abilities



and interests; who is not afraid to experiment and try out new ideas and materials; and above all, who is herself an avid reader.

162.

34.



## 9. An Occupational Study of Reading Specialists in Elementary Schools

454
MARY M. OYSTER
University of Kansas

AT TIMES it is desirable to look at the way a professional field is developing, especially such a relatively new field as the elementary school reading specialist. The conclusions from this study were based upon the questionnaire responses of 711 elementary school reading specialists in 15 states, in school systems ranging from 300 to 25,000 in school population. Seven per cent of the population sampled were males ranging in age from 22 to over 60 with a median age of about 37.1, and 93 per cent were females ranging in age from 22 to over 60 with a median age of about 46.9.

In discussing the data in this study, it is well to keep in mind that the specialists were divided into three categories: 169 consultants—those who spend the majority of their time working with staff in the improvement of the total reading program; 492 teachers—who spend the majority of their time teaching children with reading difficulties; and 50 persons with dual jobs—who divide their time between teaching remedial reading and handling another major speciality. The term "reading specialist" will be used when referring to all three types. The nomenclature of this job seems hopelessly confused, with duties and responsibilities having little to do with title. The most common title for those who worked with teachers was consultant, while remedial reading teacher was the most common title for those who teach children.

One of the purposes of this study was to differentiate between the male and female reading specialist. There were no significant job differences, although there were some significant differences in other areas of comparison. The women outnumbered the men 13 to1. A recent publication of the National Education Association reports that 11.9 per cent of the elementary classroom teachers are men, and 85.5 per cent are women. Only 7 per cent of those participating in this study were men, while 93 per cent were women. According to these figures, women seem to dominate both classroom teaching and remedial reading in the elementary school. The question has been raised of whether a preponderance of women teachers at the elementary level is psychologically sound for children. It might well be asked if it would not be better to have more men in remedial work, since the incidence of boys to girls is greater in remedial reading classes in the classroom —as high as 90 per cent.

The women are an older group. Thirty-three per cent of the women are 51-60 years of age, compared to 7 per cent of the men specialists. Thus, almost one-third of the women specialists had their original teacher training 25-40 years ago. Have these older reading specialists received sufficient training in subsequent years to keep abreast of new developments in reading? Even though many school systems have periodic study requirements, the *National Research Bulletin of* October, 1965 says that classroom teachers are not growing professionally. The Association's research shows that 15.1 per cent of the elementary school teachers—most of them in the older group—do not even have a bachelor's degree. This study of reading specialists happily presents a more encouraging picture. Only 3 per cent of the women teachers had no degree, and two-thirds of those were working toward completing the requirements. All men teachers had at least one degree. Another aspect of the age problem is that over 6 per cent of the women were over 60 years of age and 33 per cent will retire within 5-14 years. Only 2 per cent of the men were over 60 years of age, with only 7 per cent in the 51-60 category. To replace so many of these specialists will require large numbers of students entering elementary education and strong efforts at recruitment within school districts by school administrators if the supply is to keep up with the demand for well-trained, experienced persons.

### Preparation and Experience

Over 76 per cent of the consultants held both bachelor's and master's degrees, while 23 per cent held only bachelor's degrees. Fourteen per cent were working toward master's degrees, and 14 per cent of those holding master's degrees report working on the doctorate degree. Those working on the doctorate were about equally divided between Ph.D. and Ed.D. degrees. Thirty-three per cent of the male teachers held bachelor's degrees while over 60 per cent held both bachelor's and master's degrees. Fifty-one per cent of the female teachers held bachelor's degrees, while 44 per cent held both bachelor and master degrees. Eleven female teachers were working on Ph.D's.

Most reading specialists had more work in psychology and in their speciality, the language arts and reading lecture courses than in any other areas. More than one-fifth, however, had taken no work in reading practicum. A good supervised practice teaching experience with children having a variety of disabilities to diagnose and treat is of major importance in the training of the remedial specialist.

A much higher proportion of male

103.

consultants reached their positions with fewer years of classroom experience than women, and at an earlier age. In fact, seven per cent of the male consultants reported no classroom experience at all. Thirty-six per cent of the consultants could be considered tyros with only one to two years of experience at the job.

Twenty-seven per cent of the reading teachers had six years or less classroom teaching experience before entering the specialized field, while ten report no classroom experience prior to their work as remedial reading teachers. Yet all were adamant in feeling that classroom teaching experience was necessary to the successful performance of their jobs!

Reading specialists were asked to comment on the areas in which they would have liked more intensive work. It was evident from their responses that reading specialists were not satisfied with either the intensity or scope of their educational preparation. They called for more "depth" in the teaching of reading courses and said that they were inadequate in the interpretation of test results. If specialists are inadequate here, it means that they lack the ability to diagnose children's difficulties in reading—a first step in identifying the retarded in reading and providing the proper treatment. The importance of supervised teaching in the minds of the specialists was evident. Even consultants requested more work in this area of preparation.

### The Programs as They Function

The elementary school reading consultants work with teachers of K-8, but teachers who teach children largely confine their teaching to grades 2-5. The inclusion of grade 2 in so many programs seems to be a trend to bring the program to the lower grades and may have been influenced by some research that indicates that the "staying power" of extra help pays off more in the lower grades. Most elementary reading specialists say that they are members of a reading department. If this is true, this too is a new trend in the elementary school organization.

Reading consultants say they are responsible for three large areas of work: diagnosis, instruction, and consultation and counseling. It will be noted that there is a much smaller proportion of consultants than teachers (23.6 per cent as contrasted with 76.2). This occurs in spite of much advice from reading experts about the need to improve the total reading program through in-service activities and through the education of classroom teachers in diagnosis and treatment.

Remedial reading teachers say they teach reading to individuals, small groups, and sometimes to homerooms of remedial readers. They reach groups ranging from 10-15 to 46-51 per year. They also indicate that they hold conferences with parents and classroom teachers to coordinate the program for the child. They "try" to do many of the things consultants do "if they can find the time," which means that they see the importance of doing them. A few are limited by administrative regulations in the help given to classroom teachers.

### Entry and Licensure

Most of the consultants and teachers entered their positions by being advanced from classroom teacher to reading teacher to consultant. This is a sound progression of experience. Most were invited into the position by their own administrators, but some obtained their positions through direct application. Very few obtained their jobs through college placement offices or private agencies. In states having reading certificates only 8 consultants and 23 remedial reading teachers report they held the special reading certificate.

### Economic Information and Satisfactions

The reading specialist is a well paying position. Salaries for consultants range from $5,000-6,999 in the smaller districts to over $10,000 in the larger urban areas; for teachers in smaller districts from $3,000-4,999 to $10,000 in larger populated districts; for dual jobs from $3,000 to $9,999. Some report supplementing their base salary with related work in tutoring and college teaching.

It is significant that over three-fourths of the specialists said they were enthusiastic about their jobs, while only five expressed indifference or dislike for their

positions. With 99 per cent satisfied with their work, the evidence seems clear—reading specialists like their jobs. The chief satisfactions seem to be related to the nature of the work: observation of pupil progress, helping pupil's general adjustment; feeling of doing good; ability to work with individuals; appreciation from pupils, parents, teachers and administrators; freedom from the details with which classroom teachers must contend. Most of the specialists gain their greatest satisfaction from the pupils themselves. A few indicate pleasure in working with professional colleagues and in the opportunity to serve the total school community.

The dissatisfactions expressed were much more specific than the satisfactions: lack of structure and general acceptance of the program; the negative attitudes of teachers, parents, administrators and children; disgust with their own lack of training; lack of job definition; lack of time, lack of personnel, and lack of materials; loss of time traveling from building to building and having no place they could call their own. Only a few complained of extra duties.

## Conclusions

Although many readers may be interested primarily in the occupational information presented earlier, they may wish to consider some conclusions and recommendations reached from the data collected and presented below.

Dissatisfactions are a concern of all. There are many ways of attacking them, but responsibilities for removing some of the major ones found in this study seem to lie in three areas: in the schools, in the universities and colleges, and in the specialists themselves.

*Schools.* One of the major dissatisfactions expressed by the reading specialists was the negative attitude or indifference on the part of the staff to their program. This is a program for the school system, for the staff must be taken along in any change in program. They must be considered in any change in the total concept of reading improvement. Then, they will be prepared for the activities of the reading specialists. Second, the administration will need to understand the need for a less structured program and for the variety of activities the specialists must undertake, giving active support and leadership to the program of faculty education. Remedial reading teachers expressed the danger inherent in and practiced by some systems: classroom teachers may consider the remedial reading program a substitute for the developmental program. It is wise to stress that remedial instruction cannot be accomplished by remedial reading classes alone.

There is need for job definition and training requirements for the position. State certification may provide a partial solution, but steps should also be taken by individual schools to set up requirements. Administrators need to stop "promotion" and "demotion" of staff members for these positions. Administrators need help in defining the job and the specialists need the confidence and security of adequate training and job structure.

*Universities and Colleges.* The training centers bear responsibility for distributing direct communications on reading conferences, on requirements for reading specialist, and bulletins concerned with reading to administrators within the university's sphere of influence. Courses required in the administration of reading programs would assist the administrator in keeping up with the latest research in reading. There is need for more intensive training in the area of specialization for the reading specialist. Specialists beg for depth in teaching of their specialties, more work in the interpretation of tests, and more opportunities for reading practicum in laboratory or clinic.

*Reading Specialist.* The reading specialist must be willing to make clear to the staff what his purposes and goals are, what he is doing and why, and most importantly how he intends to involve his colleagues in reading activities. He needs to encourage action research. One of the weakest areas reported in this study was the amount of evaluation done and the amount of research carried on.

## Recommendations

1. Since this study is confined to 15 states, it would be interesting to have intensive studies made in other areas

105.

throughout the United States, with comparison of data.

2. Basal readers and accompanying workbooks remain the mainstay of the remedial teacher. There is a great need for a study which would determine which materials secure the best results for particular reading disabilities; *e.g.,* Frostig's educational materials are made to develop certain skills in order to strengthen perceptual abilities. It would be helpful to know what factors determine success with these and other materials.

3. An investigation needs to be carried on to produce recommendations for the most fruitful types of administrative organization in fostering improvement of reading in school systems of various kinds. Some administrative plans for reading instruction seem to consider reading separate from the characteristics of children which cause them to want to learn to read, and learn how to read better.

4. There should be (for entering specialists) a listing of schools and other agencies offering courses in certain types of reading programs. Such a listing might indicate the kind of training available, description of individual courses, degrees granted, supervised teaching available, and other details of interest to recruits, both administrators and teachers. Supervisors and administrators who set up in-service programs would also be helped by this to have a better understanding of the kinds of assistance to give in their own instructional programs.

5. Since many of the reading specialists seem concerned with negative feelings and lack of communication on the part of some classroom teachers and administrators and see this as a major deterrent to the success of the program, it would be interesting to ask teachers about their feelings, their causes and effects.

6. A study of disadvantaged children to show what effect different programs have upon their progress is needed, *e.g.,* a study providing preschool experiences which other children typically have before coming to school.

In conclusion, the most successful remedial programs will be those which contribute most to the knowledge and insight of the entire staff in dealing with reading problems. The crucial test of reading improvement is in the daily improvement of all pupils, not in the specialist working with a few "remedial cases." Broad as well as intensive training will be needed for these persons responsible for developing insight and knowledge on the part of administrators and classroom teachers. IRA has the opportunity to assume the leadership in setting up standards and titles and making them consistent for several levels of competence, by helping training institutions provide the necessary training for certification of these positions, and by persuading schools to establish the leadership and structure needed for maximum achievement.

106.

35.

Vol. 10, 65

# 13. Implications of Recent Doctoral Research[1] for Reading

WALLACE RAMSEY
University of Kentucky

DOCTORAL research in reading is subject to many limitations. Because of the need to finish a study quickly and the relative lack of sophistication of some researchers, a number of studies are superficial or deal with the obvious. In experimental research the Hawthorne effect is often ignored.

Nevertheless, doctoral research continues to command our interest, chiefly because of two factors: like the poor, it is always with us—it continues to be completed every year, on schedule; *and* it exists in substantial quantity. Any person who is seeking research findings to guide practice will find doctoral research of considerable interest and value. All of the projects reviewed here are doctoral studies completed in the last three years.

## Beginning Reading

It has often been thought (among specialists) that there are many factors important to success in first-grade reading. Recent studies by Jarecke and Vilscek substantiate this.

Jarecke, in an intensive study of twelve boys, six retained first graders and six promoted, found that failure seemed to be caused by the presence of several adverse factors related to home background, motor difficulty, and speech problems rather than to a single factor.

Vilscek studied 402 first graders to determine the degree to which mental age and socio-economic status were related to reading achievement. She found that even when the effects of possible differences in reading readiness are partialled out, mental level and socio-economic level are powerful variables affecting a first grade pupil's success in reading.

Silvaroli studied a random sample of first grade children to determine which of six mental, sensory, social, and parental factors was most predictive of reading success. He found that the ability to identify letters had greatest predictive value and noted that this was probably true because it is an indicator of general linguistic ability.

Research in the importance of visual and auditory factors has been high. Ashlock found in a study of ninety boys and girls in grades one through three that the ability to perceive letters was not more highly related to reading success than the ability to perceive geometric and pictorial material. At the higher primary levels visual discrimination had a lower relationship to reading success than in grade one.

Popp found in her study of seventy pre-readers that with an encouraging degree of confidence we can now say that if we can determine a specific area in which beginning readers ought to have a skill in visual discrimination, this area can be tested and children can be trained to perform well on a simple matching-to-sample task as a prerequisite to reading instruction.

King found that visual discrimination pretraining with meaningful word forms was superior to training with meaningless word forms in producing the ability to read a list of words. Her subjects consisted of 138 kindergarten children.

Four current studies related to the role of phonics in primary reading are of interest. Mason examined the materials of fifteen publishers to determine the sequences and levels of introduction of the various word recognition skills in materials for teaching reading. He found outstanding differences among programs in both sequence and level of skills introduced and practiced.

Miller ran an experiment to determine if the use of a special phonics program in addition to a basal reader program would produce better readers and spellers than the basal program used alone. He found that there were no significant differences in the results obtained with the first-graders involved in the study in Pennsylvania public schools.

An experiment by Dolan at the fourth-grade level in parochial schools compared results obtained by the use of a "modified linguistic" approach (after Bloomfield and Fries) versus the "traditional basal." The experimental group in Detroit had been taught by linguistic methods in grades one through three. The control group in Dubuque, Iowa, had used a composite basal program. The experimental group was superior to the control in most reading abilities except complex comprehension abilities.

It is not known to what extent the Hawthorne effect accounted for results in either the Miller or Dolan studies.

Santeusanio substituted 30 planned lessons on homophones for part of the regular phonics program of an experimental

[1]References for specific dissertations may be secured from Dr. Ramsey.

313,

107.

group of 217 children in first grade and compared their reading progress with that of a control group. The experimental group emerged as superior readers and intelligence was found to be a significant factor in accounting for differences in mean scores. It is not known to what extent the Hawthorne effect might have accounted for the superiority of the experimental group.

The proper role of various kinds of reading materials in a good first-grade reading program continues to be of interest. Pyle found that an experimental group of children having access to fifty trade books and phonograph recordings of them (and play-back equipment) increased their reading achievement more than a control group having access to the recordings but not the trade books. The researcher found a greater interest in reading among the children in the experimental group and concluded that the use of these materials was very valuable in stimulating interest in reading.

Canan found that a group of first-grade classes in which a multi-basal textbook approach in teaching reading was used gained more in reading than a group in which a single-basal approach was used. An analysis of the scores of the boys and girls at various levels of intelligence revealed some differences in the value of each type of program to a particular level of intelligence and to the different sexes. The Canan study, which involved over four hundred children, merits careful study and further replication by those seeking to discover whether a single-basal or multi-basal program is of more value.

The problem of retention of reading ability over a summer vacation was focused upon in a study by Brooks. A group of 188 girls and 189 boys was studied to determine the relationship of sex, intelligence, and six summer activities to retention of reading ability. All groups lost ability except the high intelligence girls; boys lost more than girls.

When the entire group was classified into three groups according to degree of retention and their summer activities examined, some interesting results were obtained. Three types of activities showed no relationship to retention: viewing television, belonging to a book club, and traveling. Three other activities *were* related to retention: reading library books, reading the summer edition of a children's weekly newspaper, and owning books. Reading library books was found to make the greatest contribution to retention.

## Organizing for Reading Instruction

The comparative effects of individualized reading versus three-ability group instruction on children of various levels of anxiety was studied by Skolnick. In six second-grade and four third-grade classes matched groups of children received individualized or group reading instruction. High-anxious and low-anxious children taught by the different methods were found to exhibit no significant differences in reading achievement at the end of the experiment.

Cushenbery made a careful study of the inter-grade plan of grouping used in the Joplin, Missouri schools for the last nine years. He studied test results and interviewed pupils, teachers, principals, and parents. He found much satisfaction with the use of the plan and very few criticisms. Reading ability of pupils and interest in reading were found to be higher than expected. He suggested the need for research comparing the Joplin Plan with others which involve (1) children of the same level of intelligence and background in reading, and (2) teachers as well trained and highly motivated to teach reading as those employed in Joplin.

Teaching reading in a separate reading program versus reading instruction given in social studies in the fourth grade was evaluated by Lohman. A seven-month experiment involving 444 pupils and eight teachers was conducted. It was found that there was no significant difference in reading ability between the two groups at the end of the experiment. It is not known what influence the Hawthorne effect may have had on the results.

Gaudette experimented with different sequences of SRA Reading Laboratory, Controlled Reader and "developmental reading" to determine which approach was better in grades three and five. The experiment lasted twenty-four weeks and involved 1,200 students. There were no significant differences in reading comprehension growth among the groups. The

investigation did disclose that the approach used *first* with each group produced the greatest gains.

## Implications of These Studies

Care should be taken to avoid unwarranted generalizations from research studies done in a particular locale and with a specific group. The validity of results is always dependent upon the validity and reliability of testing instruments used and the care taken in testing. The personal characteristics of teachers are influential variables which are seldom taken into account in research studies. Within these limitations certain implications may be drawn from the studies reviewed here.

Jarecke, Vilscek, and Silvaroli have shown that success in beginning reading comes as a result of the influence of many factors, some of which the school cannot control. The need for the school to strive for the improvement of skill and fluency in general language as a part of the readiness program is strongly suggested by Silvaroli and Jarecke.

The need for visual discrimination training suited to a child's specific visual needs is indicated by the Ashlock and Popp studies. Reading is probably as much a visual act as it is an auditory one and because of this careful visual training will produce beneficial results. The King study suggests the need for readiness programs to include discrimination exercises which include letter and word discrimination. The use of words that are an important part of the vocabulary of the books the child will use when reading begins is also important.

The answer to the question of the proper role of phonics in beginning reading continues to elude us, although Miller's study suggests that the use of extra phonics materials are not worth their cost in time and money. Dolan's study may suggest the opposite but this writer feels that the Dolan study is subject to several limitations which restrict its applicability.

It is easy to draw the implication from the Mason study that since phonics programs show major differences among series that using several series and shifting children from one level (and therefore one series) to another as the need arises would not produce good results. Canan's study, however, indicates that the opposite may be true. The ability of teachers to bridge gaps that occur when a child is shifted from one series to another may have been an important element in the Canan study. The use of "volunteers" to teach the multi-basal approach in the Canan study may be highly significant.

The need for the existence and use of a good library to fill an important role in the first grade reading program is indicated by Pyle's study. The use of recordings to stimulate and maintain interest in reading trade books is an innovation that needs to spread and be further studied.

The Brooks study further underscores the need for stimulating first-graders to read library books. In the long run the presence and use of a good library is probably as important to the improvement of reading *skill* (and certainly to the improvement of reading interest) as which *approach* (sight method, phonics, or combination) is used or which basal series we use or whether we have a single or multi-basal reading program.

Skolnick's study shows that claims of the beneficial effects of individualized reading instruction and the harmful effects of in-class ability grouping are probably unfounded.

The efficacy of the Joplin Plan remains unsettled—even after the Cushenbery study. Studies by this writer, Pauline Williams (1949), William Powell (1962), and others have shown no superiority for the Joplin Plan. The need for carefully controlled studies is still present.

Doctoral research in reading will continue to explore the problems and frustrations facing those seeking better practices. As the quality increases the dependence to be placed on the answers it gives will also grow. Its conclusions are not to be ignored but rather should be noted and studied. Its recommendations should be put into practice to be tried in the crucible of the continuing school program. The answer to most problems in teaching reading will probably continue to elude us—probably because it doesn't exist.

Vol. 10, 1965

36.

221.

## B. UPPER ELEMENTARY LEVEL

### 1. The Role of the Specialist In Reading

HILDRED RAWSON
University of Alberta
Edmonton, Canada

THE SPECIALIST in reading frequently begins her work as a specialist in *non*-reading. Her responsibility is for the casualties, for the children who do not learn and for teachers inexperienced in the teaching of reading.

To carry this responsibility she needs considerable status and authority. Status is both granted and earned. It is earned by evidences of initiative, of success, and of ability to co-operate.

#### Some Aspects of the Work of a Specialist in Reading

1. *The Evaluation of Projects.* Plans to measure and evaluate results should be built into every design for action. One of the first people whom the specialist may seek out for her co-operation is the statistician. There are a variety of ways of evaluating outcomes including the effect on *other* children in the classroom of treatment provided for retarded readers, evidences of improvement in teacher morale and initiative, etc.

2. *The Training of the Reading Specialist.* The training the specialist in reading receives determines to a large extent the projects she will be capable of and interested in undertaking.

There are evidences that this training will be expanded in new directions in the next decade. In the past there has been training in achievement and aptitude testing and in the careful analysis of the test results. Important research findings relevant to reading disability from a number of disciplines have been studied. These have included neurological and physiological investigations, psychiatric, psychological and sociological studies, studies



of speech development, etc.

There appear to be two areas in which the training of the specialist in reading will be considerably expanded in the next few years: (1) There will be increased emphasis on investigations in the cognitive development of normal children during the elementary school years—the years which are critical for learning to read. (2) There will be a closer study of the theory of language which will be extended to include the new developments and research in the phonological, grammatical, and semantic components of language. This will provide a broader basis for the critical appraisal of methods of instruction in language.

These extensions in her training will greatly expand the role and increase the responsibilities of the specialist in reading. She will become a consultant in establishing new criteria for the selection, sequencing, and evaluation of materials for instruction. She will extend her efforts to improve the instruction of children who read well in addition to those who have experienced difficulties.

110.

37.



## 4. Developing Teacher Awareness of Specific Oral Reading Errors

J. PHIL ROBINSON

AN IN-SERVICE project was conducted to facilitate the developmental increase of teacher awareness of specific oral reading errors. A consideration of the following items led us to focus our attention on oral reading for the in-service project: (1) Many of the data used by a teacher to evaluate a primary grade child's reading progress are collected in oral reading situations. (2) Teacher assessment of oral reading errors simultaneously measures two areas: the child's oral reading and the teacher's listening abilities. (3) Increased teacher knowledge of optimally appropriate corrective techniques for the most frequently occurring oral reading errors would improve the quality of their classroom instruction. (4) Many teachers experienced difficulties in expressing the particular problems present in the reading patterns of children they were placing in corrective instructional programs. (5) A group of these teachers requested the reading consultant to explore some of the relationships between clinical diagnosis and classroom instruction as an in-service project.

### Phase One: Developing Training Materials

Four items were produced for this in-service project:

1. Tape recorded samples of oral reading errors for six previously diagnosed children. (Durrell Analysis of Reading Difficulty and/or Gates Reading Diagnostic Tests were used. The cases selected were judged to be representative prototypes of reading skill deficiencies and were sequenced in order of their complexity.)
2. A standardized notation system for recording oral reading errors.
3. Practice sheets. (These were copies of the paragraphs read by the six children.)
4. A self-scoring key for each of the six cases. (This key was independently cross-validated by two reading specialists with clinical experience.)

### Phase Two: Listening and Error Noting Sessions

Participants became familiar with the content of the recorded paragraphs and learned the error-noting system prior to attending these sessions. A tape recorder with eight head-sets was used for all listening sessions. As each teacher listened to the tape, he or she noted errors on a copy of the paragraphs being read. After listening to each paragraph, each teacher compared his or her noted errors with the key. Teachers were not asked to report the results of this comparison.

Time for individual listening to the tape was also provided. Teachers used this to listen to the tape while observing the key or to listen again to sections containing errors they had been unable to hear or note during the first playing of the tape.

### Phase Three: Lecture-Discussion Sessions

Four such sessions were conducted to relate achieved teacher awareness of oral reading errors to broader areas of the reading process. These related topics were explored via lectures, discussions, and reading from professional publications.

Here are some typical topics from this phase of the project: basic principles of diagnostic reading analysis, remediation and corrective teaching techniques, language patterns and selected linguistic concerns, comprehension skills, silent reading, and implications for grouping practices and classroom instruction.

### Phase Four: Application of Achieved Teacher Awareness

Most of the participants have used the notation system and their increased awareness in completing an informal diagnosis of several children in their own classrooms. One or two have attemped the administration of a complete diagnostic test battery.

With the help of three teachers, materials are being prepared by the reading consultant to apply the error-recording techniques to group instructional situations. Plastic overlays for recording errors while a child reads from text material and group-centered check lists are in preparation.

111

**Phase Five:**
**Outcomes and Splash Effects**

1. Summer school referrals to corrective programs are expected to be made with more precision by participants.

2. Teachers report a greater appreciation for the work of reading clinicians and are better able to integrate diagnostic, remedial suggestions in their classroom teaching.

3. Two participating teachers plan to specialize in clinical work. They are starting their graduate programs this summer.

4. Several teachers are using much more flexible grouping procedures in their self-contained classrooms.

5. One of our team-teaching schools has developed a "Target Teaching" reading program. Based upon principles from this in-service project, "Target Teaching" organizes instruction in a manner that maximizes staff skills and combines efficient use of instructional time with individually identified strengths and weaknesses of children.

6. The pre-service possibilities of the training techniques are being explored. Two universities in our area are interested in developing a similar training program.

7. Since the beginning of this project, the listening-error notation tapes have been tried with several elementary principals. Plans are underway to organize a similar project for administrators. Two goals for this program have been established: to aid the principal in evaluating primary grade reading observations and to increase the principal's insight into reading skill development in the primary grades.

8. Some teachers are now bringing tape recorded samples of children's oral reading errors to conferences regarding instructional techniques and materials. Frequently, they have done an excellent job of analysis and have translated emerging error patterns into well-defined instructional needs appropriate to the child.

Planning and conducting this project have been challenging and interesting educational experiences. Perhaps next year we shall be able to extract hypotheses for testing from this experience and convert our current challenges and concerns into a research design to formally evaluate the utility of this training approach.

38.

## 3. The Changing Role: From Teaching to Guidance

218.

VERNON L. SIMULA
University of Minnesota, Duluth

ELEMENTARY guidance, at least in the formal sense, is a fairly new idea on the educational scene. Because it is a fairly new concept, a concise definition of what is meant by the term is not to be found readily. While guidance programs do exist in some elementary school systems about the nation, the guidance people themselves in many states are still at the stage of defining the role and responsibilities of an elementary guidance worker. As a consequence, the definitions and descriptions of elementary guidance which we have available to us are highly varied. Not only do these definitions vary, but the proponents of the various definitions appear to be quite adamant in supporting their particular positions.

### Description of Elementary Guidance

Before presenting a working definition of elementary school guidance, I would like to insert a necessary preface at this point. I think that it is important to note at the onset of any discussion about elementary guidance that many, and perhaps all, of the services that are commonly attributed to the elementary guidance program are now being provided—at least in some degree—by the classroom teacher, by the building principal, and by other staff personnel. Hence, it is important to realize that new or different services are not necessarily being suggested when someone proposes that an elementary school develop a guidance program. Instead, the essence of such a proposal is that the present services be formalized in a sense and that a professionally trained person who has specialized in a particular segment of such school services will now become available to assist the classroom teacher in dealing with children — or, as someone has put it, in helping the teacher meet the needs of the children.

So, then, what is elementary school guidance? To ask the question in words that may secure us a more direct answer, we might ask what are the services with which this new educational specialist will help the classroom teacher? What is the role of the elementary school guidance person in the elementary school?

Numerous conferences and colloquia have been held to grapple with this very question. There appears to be some general consensus at least that the primary purpose or objective of elementary guidance is to help children deal with, or meet with, or adjust to, the varied problems which they meet.

The types of problems which children encounter are, obviously, numerous. According to some writers in the guidance field, children may need assistance in dealing with personal problems which arise from some physical health problem which they may have, such as coping with an asthmatic condition or a noticeable visual defect. Other children may need specialized help in order to handle an emotional or social problem, such as coping with the fear of being bullied or tormented by the "tough kid" on the way to school. Other children may need help because they sense that they are not fully accepted as members of the neighborhood peer group. Some children may need assistance in dealing with academic problems, such as low motivation for school work or poor study habits. And, as children approach adolescence, some guidance authorities note that some children begin to seek information regarding vocational choices.

If these, then, are the needs of elementary boys and girls, the services of an elementary school guidance program are those which will provide for those needs. The services which are typically provided by an elementary guidance program include the following:

1. Compiling an inventory of information about each student as he proceeds from year to year through the elementary grades;
2. Testing pupils and interpreting test data to pupils, teachers, and parents;

113.

3. Counseling with elementary students about such problems as grades, adjustment problems, and motivation for school work;
4. Providing an orientation for pupils as they enter a new school building or as they proceed to the next higher educational unit, such as junior high school;
5. Providing occupational information to students, particularly those in grades five and six; and
6. Providing open channels of communication by which children can be referred for more specialized help if needed.

That such services are needed there seems little question. The crucial questions, however, deal with determining who should provide these services. Should these duties remain the responsibility of the elementary classroom teacher? Or should these duties be reassigned to a specialist who is typically known as the elementary guidance person?

This question essentially defines the crux of the current controversy about elementary school guidance. Persons on one side of the controversy claim that the elementary classroom teacher is the most appropriate person to supply these services because of her close contact with the students. Others, to the contrary, claim that the classroom teacher cannot adequately meet all the needs of children because, as they claim, she is too busy with other teaching responsibilities. They add, also, that the classroom teacher is not adequately trained to supply certain of these services, particularly counseling.

Knowing what busy people elementary teachers are—and reminding myself of the rapid changes that are taking place in the subject matter of the elementary curriculum and further reminding myself of the growing complexity of the elementary school "operation," I will grant that the promise of supplementary help for the classroom teacher is indeed inviting.

I think that much can be done to assist the classroom teacher with compiling information on cumulative folders, with conducting testing programs, with orienting students to new schools, and with making referrals to specialized agencies. Relieved of these types of duties, the classroom teacher can then devote greater time and effort to her primary responsibility—the elementary child and his learning experiences.

## The Role of Counseling

I have purposely withheld comment about the counseling phase of the proposed guidance services. The guidance people, you will recall, hold that the typical elementary classroom teacher does not have sufficient time to do adequate counseling, and they further claim that the elementary teacher is not sufficiently trained in the skills of counseling. Therefore, they assert that a trained specialist is needed.

If we describe counseling at this level as being limited to helping boys and girls primarily with adjustment and motivational problems, I would urge that such a responsibility remain the central function of the classroom teacher. The classroom teacher must find the time to help children with these types of emotional, social, and academic problems if she is going to fulfill her professional role within the classroom. Moreover, we as elementary teachers, I think, will be the first to admit that we are in fact limited by our sophistication about adjustment processes and counseling techniques. These circumstances, however, need not obviate our attempts to seek more adequate skills. To the contrary, we should strive to seek a greater understanding of the personality dynamics of children and to seek more refined skills in working with children's problems.

My position is based upon several assumptions. First, I assume that the classroom teacher is a very real person in the eyes of the child and that she is one of the "significant others" in the interpersonal environment of the child. As a consequence, a person in such a relationship with the child would be able to work more effectively with the child than would someone who meets the child only intermittently during appointments.

Second, I also assume that the process of helping someone with adjustment problems can better be done within the real-life, day-to-day classroom situation

than within an artificial segment of life where the child is removed from the classroom and sent to an office down the hall for an appointment.

Third, I also assume that, ideally, it is better to help children with their problems when the problems first arise—to deal with the problems in a preventive fashion within the actual context of the classroom rather than to wait until a referral can be made to a guidance counselor.

What I am saying in all three of my assumptions is that counseling with elementary children should not be the sole province of the guidance specialist. To the contrary, any elementary teacher who is doing her job professionally and conscientiously is unavoidably involved in the counseling-type role with children. When a classroom teacher works diligently to establish a secure personal relationship with each child so that the child will not have anxieties about the learning situation, this teacher is providing for the emotional needs of that child. When the classroom teacher spends a few minutes talking privately with a child about his problem of getting along with his classmates, this, in my estimation, is vital counseling.

The teacher of reading, particularly the primary teacher and the remedial reading teacher, needs to be particularly sensitive to the psychological needs of children. They need to be skilled as well in dealing with those problems which may interfere with the child's process of learning how to read.

Even though supplementary guidance services are provided at the elementary level, we must not lose sight of the fact that the elementary classroom teacher is unavoidably in an intricate, and often delicate, psychological relationship with each and every child. As a consequence, the classroom teacher cannot avoid the counseling type of relationship. Hence, it seems important that the elementary classroom teacher perceive her role as a changing one, at least in part, from teaching to guidance.

39.

## B. UPPER ELEMENTARY LEVEL

### 1. In-Service Planning: A Necessary Adjunct to an On-Going Reading Program

MARGARET SLOAN
Rochester Public Schools (Minnesota)

WITH THE CURRENT information explosion, the age of experts and specialists, and the ever-present pressures to revitalize the reading curriculum, in-service programs can be expected to provide the major avenues by which innovative research techniques are relayed to the classroom teacher for immediate implementation. This on-the-job training, perhaps more than any other measure, can help break the traditional time lag between research and practice.

Some school systems now have rather refined in-service programs while others are just beginning to recognize this medium as an effective means of communicating information and cooperatively studying problems.

In-service programs vary considerably from school system to school system, from state to state, and from region to region, and it is good that they do. If such programs are to be effective, they must be designed to suit local needs—that is, every school system needs its own brand; a ready-made program won't do. This is perhaps one of the reasons that there has been so little written on the practical aspects of in-service.

Some may question the need for in-service programs with arguments such as the following: Why is it necessary to continue to train teachers who have graduated from accredited colleges and are certified to teach in a particular area? What is there to tell teachers who have spent a large portion of their lifetime teaching at a particular grade level? Aren't they the experts?

First, let us consider the demands today. Yesterday's skills are no longer good enough. There are so many areas of specialization that an elementary teacher cannot be an expert in all facets of his work. He is asked to determine the needs of each child, to program a particular type of instruction based upon these needs, and to know when to call for outside help—even to know what outside help is available. It is necessary that teachers continue to learn after they graduate from college.

Second, teachers need an opportunity to examine new materials, new methods, and new techniques in order to update

their own teaching abilities. Too, if a school system is to maintain continuity between grade levels and subject areas, teachers must plan together to avoid undue repetition and serious omissions in the child's educational development. Some graduates begin to teach with no more training in the teaching of reading than a general language arts course. Others have had a course in the teaching of reading but, when questioned, quickly admit that little time was spent on reading beyond the primary grades. These deficiencies have to be dealt with in the local school systems if the reading program is to function adequately. In-service programs can help fill many of the gaps and help solve many of the problems.

Effective in-service programs arise from need. The needs are varied and programs designed to cope with these needs are likewise varied. Some are systemwide in structure, such as writing a reading curriculum; some are limited to a particular grade-level, such as developing readiness activities for the kindergarten; some are limited to a school, such as the staff studying the needs of disabled readers; some to a group of teachers who are trying a new basal series, or to administrators who are initiating a remedial reading program, or to subject area teachers who are learning to apply the reading skills pertinent to their grade level and subject area. Since the effectiveness of any in-service program is determined by the extent to which classroom instruction has improved, it is necessary to establish the specific purposes of the program early and to plan some type of on-going evaluation whether these evaluative techniques be formal or informal in design. Broadly stated, activities which center around teacher education on the job can be considered as in-service activities. Preschool workshops, grade-level meetings, twelve-month plans of employment, committee work, conferences, faculty meetings, extension courses, and certain special activities are examples of such training programs.

When are in-service programs held and who assumes responsibility for them? There is no consistent answer to this. However, there is a growing tendency for various school systems to include in-service work within the school day or the teacher's contract rather than asking teachers always to devote Saturdays and after-school time to large projects. Sometimes substitutes are hired to release teachers for this work; sometimes a month or so during the summer is devoted to in-service work, especially when developing a curriculum; sometimes extra pay is given for a particular job; and sometimes school board credit is given in lieu of taking prescribed courses on college campuses to meet local requirements. However, it is doubtful if there will ever come a time when all in-service work can be done on school time or with school funds. But this trend certainly adds status to the programs in the teachers' eyes.

Who directs the in-service classes? Someone needs to pull the various activities together into some kind of a school-wide program if anything of value is to result from these joint efforts. In many systems, the superintendent, the elementary director, or a particular principal may organize and conduct these programs if there is no reading consultant. If there is a reading consultant on the staff, however, he can expect to devote a large portion of his time to in-service programs of some type. Sometimes he will conduct these directly and at other times certain staff members will assume the responsibility. For example, experienced teachers on the staff can help new teachers adjust to a new teaching assignment, demonstrate certain techniques, or explain new materials. At times, the consultant will want to enlist outside consultant services from a university or another school system, or engage a noted speaker to address a group on a particular topic. There is always a need for some type of program due to the problem of the ever-changing faculty, the developmental nature of reading, and the many factors which influence learning.

A wise consultant or person responsible for in-service programs sometimes leads, sometimes helps, sometimes instigates change, sometimes delegates responsibilities, but always observes and evaluates. He makes a constant effort to know what is going on, what problems exist, and what new and varied approaches to the problems could be planned.

## The Situation in Rochester

Thirteen elementary schools, two junior high, and two senior high schools serve a total student enrollment of over 10,500 students with a staff of over 550. All in-service programs are planned in cooperation with the assistant superintendent in charge of instruction. In 1946, the eleven-month school year was initiated. Presently about 42 per cent of the teachers work the extra month. They may apply to teach summer school, work in curriculum workshops, attend summer school, travel, or work on individual assignments. There are also pre-school workshops of at least one week for all teachers—longer for new teachers—and occasionally other days are provided during the school year.

## Remedial Reading Activities

Four years ago a reading consultant joined the staff. That year it was decided to initiate a remedial reading program the following term. Since there were no trained teachers available and Minnesota, at that time, did not have certification requirements in effect for reading teachers, it was decided to select two teachers from the staff and devote a summer session to training them in remedial techniques. The consultant tested students and selected 36 cases from grades 4-6 to participate in this training program. Students with varying types of disabilities and varying degrees of retardation were selected. These students were grouped according to reading level and type of disability and assigned to classes of no more than six students. Each teacher taught three of these classes daily under supervision for the four week period. An additional hour each day was spent studying various remedial techniques, learning to administer and interpret individual diagnostic tests, and learning to diagnose and to program instruction according to students' needs. Detailed lesson plans were kept and once a week these were discussed in detail with the supervisor. At the close of the summer session, each trainee was assigned to two reading centers for the following school year, spending one-half day in each. He was given the responsibility of checking referrals, organizing classes, and instructing a maximum of seven classes (42 students) daily. Since then, the staff has doubled. Four teachers now spend the day in each of the four centers. The students from the area schools come to their respective centers for special reading instruction. All four teachers have now met state certification requirements and, in turn, are sharing their information and training with their fellow teachers. Last summer, for example, each reading teacher worked with other summer school teachers assigned to teach reading for the summer program. They planned and conducted weekly seminars, visitations to remedial classes, and special programs aimed at helping classroom teachers have a better understanding of reading problems and remedial techniques. During the school year, the visitation program was continued. Each classroom teacher who had a student enrolled in the reading center was encouraged to visit at least once in the fall and once again in the spring in order to see the student in the small group, success-centered environment and to observe certain remedial techniques used with certain disabilities.

During this time, the reading consultant met with the elementary principals several times to discuss the remedial program, its procedures and objectives, and to discuss problems and offer suggestions concerning ways they might help their classroom teachers implement what the children were learning from this specialized instruction. The approach to training remedial teachers and relating this specialized instruction to the rest of the staff has worked out remarkably well. Classroom teachers are better able to adjust instruction in the classroom, and the students have a more positive approach to improving their reading ability.

## Curriculum Building Activities

Four years ago, developmental reading was added to the curriculum for all seventh and eighth grade students in the junior high schools. Teachers were hired; materials were selected; and instruction began. Since it was decided to use multiple materials rather than a single textbook, a need to have some sort of curriculum guide became urgent. An in-service class for this purpose was set up.

Seven teachers met two hours weekly for six weeks with the consultant and developed an outline guide to follow until a summer session could be used to write a more complete curriculum guide. These seven teachers were granted Board of Education credit for their curriculum work. (A teacher in the Rochester school system must earn up to six quarter hours each five year period in order to satisfy local requirements. The credit earned from local in-service courses may be substituted for college credit.) Since that time, several of the citywide departmental meetings each year are devoted to curriculum topics. At all times, the department chairmen in each building are available to assist teachers in interpreting the program for classroom use.

A Vertical Reading Committee representing each building and grade level (K-12) was organized to study current problems and to serve as a direct means of communicating reading problems and information to and from the rest of the staff. As a result of this committee's work, it was decided to develop a reading guide for grades one through six starting the first available summer session. Twenty-three teachers and administrators initiated this project last summer and will continue their work this coming summer session. In order to provide this committee with first-hand information when they are ready to select the material to be used as the main resource, experienced teachers are now using six of the leading basal series in several classrooms in various parts of the city. After the curriculum guide is written, plans include adding helping teachers on the staff to help classroom teachers implement the new curriculum and improve teaching techniques.

## Teacher Training

The reading consultant conducted a basic reading course for elementary teachers two years ago. Recommended procedures for developing oral and silent reading skills, for developing various word analysis skills, and special diagnostic and remedial techniques suitable for classroom use were presented. Board of Education credit was granted for this work.

Several closed circuit TV and lecture type extension courses in reading from the area colleges have been offered in addition to the local in-service courses. College credit is granted for this work.

## Workshops

A pre-school workshop is scheduled each fall for newly employed teachers. A period of this time is devoted to orientation activities in reading. Last fall, a separate workshop was conducted by and for the reading and special education departments during these pre-school activities. Specialists from the Mayo Clinic, other community services, and from the public school staff participated by discussing the roles of the psychologist, the neurologist, the social worker, and the school nurse and by indicating how other special teachers can contribute to a well-developed educational program. This project informed and promoted a better understanding among the various special areas.

In the fall each secondary school department will be allowed to use up to two days of the pre-school workshop time to organize and conduct its own workshop within its particular subject area for the purpose of updating instruction. In the elementary department, plans are being made for consultants from some of the publishing companies to meet with groups of teachers who will be using the new basal materials on a trial basis.

Present plans include launching a developmental reading lab program when the new high school opens in the fall. Since this is a new experience for Rochester, an outside consultant who has had experience in this type of work will be invited to explain this type of program to the secondary school staff and to discuss what opportunities a developmental reading lab can be expected to provide for high school students.

## Improving Instruction

While the Rochester consultant was visiting elementary reading classes, it was noted that some of the same instructional problems kept appearing again and again. The teachers were asked if they would like a series of voluntary meetings dealing with four of the problem areas appearing most frequently. Many of the teachers replied affirmatively so these meetings will be scheduled at the earliest opportunity.

A professional library is maintained for the use of the staff. Book displays have been organized so that teachers can examine library books first-hand before suggesting titles to be ordered. Idea exchanges have been held to share techniques teachers have found effective in meeting a particular problem or teaching a particular skill. Bulletins and newsletters have also been used as needed.

Group meetings are held frequently. These range from a grade level arrangement to discuss a problem concerned with curriculum to a building or smaller group arrangement to discuss problems peculiar to the building.

The city reading teachers have their own reading organization in addition to belonging to their area, state, and international reading associations. This city reading organization is designed to meet certain social and professional needs. At the last meeting, for example, the discussion centered around the type and amount of confidential information which should be released from the reading files and to whom. There are the usual committee meetings, staff meetings, meetings to demonstrate materials, or individual conferences when one of these approaches appears the best way to handle a situation.

The foregoing list of activities in Rochester is by no means exhaustive nor is it recommended as a prescribed course for all to follow. Perhaps your community has other needs. Whatever means you may choose to improve reading instruction in your school system, in-service programs are bound to be your most effective medium. Today, an on-going reading program maintains a varied and purposeful program of in-service training.

40.

211. Vol. 9, 64

ing during their undergraduate studies.
2. Many teachers had a course in reading which was combined with language arts.
3. Several had general methods courses which encompassed music, mathematics, and science, in addition to the reading and language arts. In these, only one or perhaps two class periods were devoted to the teaching of reading per se.
4. Teachers who were required to take a course in the teaching of reading reported that the greatest emphasis was on one of the following: children's literature, choral reading, setting up of an individualized reading program, phonics, word recognition, reading readiness, factors that hinder reading ability and standards for good oral reading.

**Questionnaire—Survey***

To what extent was theoretical information and practice teaching integrated? The replies ranged from *"not very much"* to *"none."*

How many months of practice teaching were required? The replies ranged from "none" through "six weeks, ten weeks, three months, four months."

Did your college instructor in reading observe you teach *reading?* The replies ranged from "no" to "once," "twice" and one teacher had the good fortune of being observed three times.

The results of this questionnaire indicate that inadequate training of teachers appears to stem from one or more of the following inadequacies:

1. Sometimes colleges do not require a foundations course in the teaching of reading.
2. Courses offered in the teaching of reading often are poorly taught and sketchy in content.
3. Courses in the teaching of reading are often combined with language arts, mathematics, science, social studies, and music.
4. Practice teaching was often inadequate because it was not integrated with theory.
5. Some critic teachers were not master teachers with recent courses in the latest trends and thinkings in the teaching of reading.
6. Little or no cooperation between teacher training institutions and public schools used for student teaching.

**Recommendations**

1. Courses in the teaching of reading should be offered as separate courses and not integrated with other subject matter. It is impossible to offer a foundations course in reading and include mathematics, social studies and language arts, and do justice to all.

2. Every student teacher should be required to complete a course of at least six semester hours in the teaching of reading.

3. In-service courses in reading should be offered to all beginning teachers in order to better acquaint them with methods, materials, and the philosophy of the district of their employ.

4. Professors of Education, administrators, practice teachers and students must realize the importance of close cooperation, otherwise little can be accomplished to improve the preparation of teachers.

5. Teaching Centers or laboratory schools should be set up in the public schools to serve as practice schools.

6. More and better supervision for teachers.

7. Demonstration reading lessons by the reading supervisor or reading director.

8. In-service training for administrators, supervisors, practice teachers in order that they may keep abreast of the times, and be in a more capable position to help their teachers.

In conclusion, may I state that it is my firm belief that, as Harrison and Gowin[1] assert in *The Elementary Teacher in Action,* "The quality of actual performance is directly related to the quality of preparation." I would carry this one step further; this preparation is a continuous process, an ongoing one, in which the teacher is always learning. It is wise and farseeing administration that provides for in-service workshops to supply the sources of knowledge and learning for which teachers, by their very definition, must hunger.

*Austin, Mary C. *The Torch Lighters, Tomorrow's Teacher of Reading.* Cambridge, Mass.: Harvard University Press, 1961.

[1]Harrison, Raymond, and Lawrence E. Gowin. *The Elementary Teacher in Action.* San Francisco: Wadsworth Publishing Company, Inc., 1960.

## 2. In-Service Education as a Continuing Need

210.

MARGARET V. SUCSY

**The Need for Training**

TODAY, with the demand for teachers so much greater than the supply, some teachers are entering their first classrooms with little or no training in the teaching of reading. What may be happening is that, thrown on their own, some of our beginning teachers are trying to teach reading as they themselves were taught. Yet, is it possible for them to remember how they were taught in the elementary grades, and, if they could remember accurately and with the mature insight of adulthood, would we *want* them to teach as they were taught?

Through a questionnaire study conducted of many candidates applying for teaching positions, as well as of many hired within the past two years, the following observations were made:

1. Many teachers are not required to take any courses in the teaching of read-

120.

41.

Vol. 10, 1965

## 2. Teamed Together— Teacher and Specialist

219.

MARGARET SWANBERG
Duluth, Minnesota Public Schools



THE RED QUEEN in "Through the Looking Glass" told Alice, "Here it takes all the running you can do to keep in the same place. If you want to get somewhere else you must run twice as fast."

The primary teacher of today faces this same dilemma. In our present society's quest for excellence, competence in reading remains the symbol of education. No longer is reading "up to grade," considered enough; and "minimum essentials" are not in keeping with our expectations of all children growing into avid, thinking readers.

To the primary teacher it appears that the eyes of the world are upon her. She is charged with mediocrity, with underestimating the reading potential of the young child, with using out-dated teaching methods, with gearing all her teaching efforts to the average child, disregarding the slow learner and the child with exceptional abilities. She is accused of teaching "the group" and not the individual. She is bombarded on all sides with new innovations, new methods, new types of materials which she has little time to investigate or evaluate. She is told that the dropout problem begins in her room, and that she must change methods and materials to teach the culturally deprived to read. This teacher wants help, and she wants it now. She wants guidance and leadership in improving and updating her methods and her materials; she wants to sit down with someone and talk about Tommy and Peggy and their problems in learning to read. Administrators have the responsibility of giving her this help.

For many years a large percentage of elementary schools have had specialists on their faculties in art, music, and physical education. With the orbitting of the first Sputnik, science specialists—more recently modern mathematics specialists — have been added to some elementary faculties. Perhaps the old adage that "the squeaky wheel gets greased" has brought about the appointment of these particular specialists. By the same token, with worldwide concern for better reading ability, the *reading specialists* should now be found as a part of every faculty.

One of the more promising of the innovations in elementary education is that of *team teaching*. There are as many definitions of team teaching as there are educational reform experiments. Webster gives us the definition of a team as "two or more pulling together." Perhaps this definition can help in answering the plea of the primary teacher: teaming with a reading specialist.

### Who is the Reading Specialist?

To be successful in this team effort, the reading specialist must be an expert in many fields. She should have had successful teaching experience at the primary level, not only because this experience will help her to understand the problems, but because it will give the teacher more confidence in her as a specialist. The two have these basic things in common: they have tried in practical ways to teach children in the classroom to read and they know how to cope with children as well as with teaching reading.

The specialist knows the educational concept of "accepting pupils where they are" and has the ability to apply this to teachers——both the bright-eyed beginner with all her eagerness and theory, and the oldster with the "I dare you to show me a better way" gleam in her eye.

The specialist is well-prepared as an expert in the field of reading. She should have specialization at the graduation level in reading and the diagnosis of reading disabilities. She must be well versed in mental hygiene, child growth and development, and patterns of learning.

The specialist must know the answers to the question "What's new?" and be able to evaluate those answers. She should be well acquainted with recent research and experimental studies in reading, with new teaching methods and techniques, and with the vast variety of new reading and teaching materials, if she is to be successful in her advisory role.

### How Will She Help?

Let's consider the beginning teacher and her problems. She will need a "model" to serve as a pattern for her teaching. In all other professions it is the "top man" or the specialist who serves as the model, who takes on the most serious case to demonstrate for the interns in the profession. So it should be in teaching. By taking over the class, by demonstrating different effective ways she can provide the beginning teacher with the correct model. The beginner often has trouble with organization and making full use of time. Here the specialist can offer alternate organizational plans, and she can suggest time saving devices.

As she works together with teachers, the specialist may suggest a new type of reading program for a certain child or a group. Reading problems can often be avoided by more appropriate materials or

121.

by a change of pace, and the specialist will be alert to these.

The kindergarten teacher, especially, has a great need for help from the reading specialist. The hue and cry today is "teach them more and teach it sooner," and many adults express the feeling that formal reading of symbols should begin in the kindergarten. There are others who say, "Yes, we *can* teach them to read, but should we? What about the in-put before we try to get out-put?" The kindergarten teacher is caught in this squeeze. The specialist can help her evaluate her group and plan a program that is best for that group.

### The Team-Teacher and Specialist

Working together as a team, the teacher and specialist can accomplish a great deal. The specialist can teach demonstrations, can aid in selection and use of materials, can diagnose a pupil's performance as well as that of an entire class, can provide intensive analysis of children with severe reading disabilities, and can determine the reading needs of gifted children.

The specialist can obtain the cooperation of other services when necessary—the psychologist, the school nurse, the social worker, the corrective speech teacher, and the school librarian. She can correlate the group's findings and with this background of information work with the teacher to overcome a child's specific difficulties. We do not infer that a teacher could not or would not obtain these services; she just does not have the time to do it.

The specialist can aid in interpreting research and test data, can assist in organizing a class for better reading, or can help move into a primary unit or individualized reading as the child's progress demands. She should see that the development of the reading skills is structured and developmental from level to level for each child.

As we face this challenge of the future of our great society, much of the responsibility for improving reading ability rests on the shoulders of the primary teacher. But by team-planning, team-effort — teacher and specialist pulling together— we can move forward and "do as well as we know how to do."

Vo. 9, 64

42.

# 3. Using Basal Materials Effectively

123.

I. E. AARON

THE CONTRIBUTION of basal readers to the teaching of the fundamental reading skills depends upon how effectively the teacher uses these materials. Much of the argument against basal readers can be traced to their poor use. Books in and of themselves will never teach a child to read effectively. Teachers utilizing a basal reader approach in reading instruction are obligated to capitalize to the fullest extent upon these instructional aids.

The teacher in the elementary grades who knows well the many comprehension and word attack skills and who has a good idea of an effective sequence for teaching these skills can operate successfully without basal readers. Most elementary teachers, however, need some sort of a guide for making certain that all of the important skills of reading are taught. These basal readers, with their accompanying teacher's guidebooks, offer such a sequence.

Though basal readers may be used effectively to aid in teaching the basal skills of reading, a complete dependence upon them is harmful. They must be supplemented by library books, teacher-made exercises, and other reading materials. Wisely used, however, these basal materials



have much to offer the teacher as a framework for skill instruction.

Teacher experience and a limited amount of research offer some guides for effective use of basal readers and related material. Teachers should:

1. Take adequate time to teach thoroughly the comprehension and word attack skills.
2. Teach children in basal readers that are suited to their reading levels.
3. Teach superior readers in books of the adopted basal series that are on their reading levels even if these children are reading on levels above the grades in which they are enrolled in school.
4. Read in advance all selections in each basal reader used in the basal reading program.
5. Keep the basal reader at school and place it in the children's hands only when it is needed for instructional purposes.
6. Use the same publisher's series of basal readers throughout the primary grades in a given school instead of series A at one grade level and series B at another grade level.
7. Study the guidebook lesson plan thoroughly before attempting to teach the directed reading lesson.
8. Deviate from the guidebook lesson plan when deviation is needed to improve instruction.
9. Know the basal reading skills and how to teach them efficiently and effectively so that instruction may be modified to overcome lesson plan weaknesses in suggested skill practices.
10. Adapt the time spent in building readiness for a given selection to the children's backgrounds and the particular selection being used.
11. Introduce in the readiness phase of the lesson only those new words that the children cannot recognize for themselves.
12. Have the children read silently before they read orally.
13. Ask different types of questions in checking on comprehension in order to develop a variety of comprehension skills.
14. Schedule most word attack skill practice after a silent reading of the selection.
15. Vary the purposes for re-reading a selection in order to develop a variety of comprehension skills.
16. Use follow-up activities only if they have educational value and contribute to the development of reading skills, understandings, or appreciation.
17. Supplement basal reading materials generously with recreational and informational reading materials.
18. Use a particular workbook exercise only if it contributes to the development of some skill needed by the pupil with whom the exercise is being used.
19. Correct workbook exercises as soon as possible and discuss results with the children.
20. Avoid using workbooks as devices for keeping the faster-moving children occupied.
21. Teach the basal reading skills thoroughly within the framework of the adopted basal reader series so that systematic coverage of a second publisher's series on the same difficulty levels as the first series will not be necessary.

43.

## 2. An Editor Looks at Children's Language

MARION A. ANDERSON
Ginn and Company

AS I STUDIED the title of the talk assigned to me for this paper, I soon discovered that I was not certain about its precise meaning. Was it "An *editor* looks at children's language," or "An editor looks at *children's language*"?

At first it seemed I had only graphic symbols to aid me. Then a self-image asserted itself, and I concluded that the views of an editor on recent studies of children's language might be of some interest, especially if we considered briefly the implications of these findings for the preparation of materials for the teaching of reading.

Usually most editors do little original research. The creative aspect of our work is rather in using the resources of the publishing industry to give form and structure to ideas for improving instruction and in so doing, help to build new and better materials. To be effective, the editor must try to keep abreast of developments and innovations in his field. Also he must, insofar as possible, view with an equally open mind the theoretical findings of highly specialized and technical disciplines and the practical operations of newer classroom programs.

### Crucial Studies of Children's Language

What then does the editor see as he looks at children's language—or more accurately at what researchers and scholars are discovering about children's language? First, we see the young child who possesses an amazing knowledge of language. Most obvious is the extent of his vocabulary. So much has happened since Robert Seashore's *(11)* headline-making report in 1940, that we are likely to forget how long we have known that six-year-olds understand not hundreds but thousands of words. It seems to me that we should know more about the depth of the child's understanding of words in his vocabulary and the rate and manner in which it grows, but such information will undoubtedly come in time.

In the studies of Strickland *(13)* and Loban *(9)* we see that children at an early age are aware of and use a wide range of sentence patterns and that they are able to manipulate sentences through the use of movables and elements of subordination. Their oral language displays a sophistication and maturity not evident in beginning reading texts. We also see how closely language ability and success in reading are related.

124.

Second, the editor, like the teacher, sees that the language of thousands of children is still immature and often inadequate for purposes of successful instruction. Children from culturally-deprived homes, rural or urban, Caucasian or non-Caucasion, are often seriously lacking in experience in using language *(2, 3)*. Not only are they unable to verbalize easily and freely or to comprehend accurately what is said to them but also they have not listened to nursery rhymes, poems, stories or other forms of written prose.

Third, we are being made more fully aware of the varied dialects and sub-dialects which are spoken in our country *(10)*. For generations, authors and editors of textbooks and most teachers who used the textbooks ignored the fact that the New Englander, the South Carolinian, New Yorker, and the Texan used slightly different dialects. I was first pedagogically aware of these differences when I discovered in Gates' study of spelling errors that the most common misspelling of *saw* was *sor (4)*.

The German, Italian, Scandinavian, or Jewish children who came from homes where broken English or a native language was spoken were strongly motivated to learn "good English." Parents often expected their children to help them change their speech habits. Perhaps some of the children for whom dialect presented an insurmountable obstacle were dropouts; but for many of them the problems were overcome, although some remnants of the native languages may still exist in the speech of some large groups of people. So great was the insistence on so-called correctness that the use of dialect or substandard forms in textbooks became an accepted taboo. Nevertheless, the dialects of great segments of the population are established within the home and neighborhood.

Finally, as we look at children's language, we see mounting evidence that immaturity, lack of language controls, and indifference are not only disadvantageous to learning but also somehow related to intelligence. If one of our goals is to equalize opportunities for all children, we see language as a controlling factor and feel compelled to do something about it.

Studies of children's language suggest then (1) that most children entering school possess a very considerable knowledge and control of language—much more than was formerly assumed; (2) that the children who come from homes with a meager language environment may have had so little experience with standard English that they are handicapped in school activities; (3) that significantly different dialects are spoken throughout the United States; and (4) that it seems possible to affect intelligence by improvement of language.

## Innovations in the Teaching of Beginning Reading

For a teacher or an editor this kind of information, important though it is, is not enough. If we are to help improve children's growth in all aspects of language-speaking, reading, writing, and listening, we must also investigate other disciplines, especially those of the psychologist, the psychiatrist, the sociologist, the anthropologist, and the linguist. And we soon discover diverse and often conflicting views. How can these findings and theories be utilized? One cannot say *reconciled,* for in my opinion some are irreconcilable.

One significant group of linguistic specialists are of the opinion that at the beginning stage decoding is the child's first reading task. They believe that the child must learn to recognize the relationships between the spoken and written word and to associate sound and symbol with a fair degree of accuracy so that he can generalize about these relationships. To facilitate the child's mastery of the decoding task, they believe that phoneme-grapheme relationships should be presented in scientifically controlled sequences. Few if any irregularities are permitted, as the forming of generalizations about language is the primary objective. Once these basic generalizations are fixed, it is believed that the child will easily grasp exceptions and acquire principles of lesser utility.

For the past several years a few dedicated individuals have been developing and testing materials and methods of instruction to support this theory. The works of Charles C. Fries, Rosemary Wilson, Henry Lee Smith, Robert Hall, Pauline Rojas and Ralph Robinett, and

Donald Rasmussen and Lynn Goldberg are especially noteworthy. It is my understanding that on the basis of extensive classroom use and experience both materials and methods have been adjusted. Only recently are published materials being made generally available.

A number of persons concerned with beginning-reading instruction, linguists as well as reading teachers, have expressed reservations about the strictly controlled phoneme-grapheme approach. Levin *(10)* who supports the theory that children should learn to generalize from experiences with regular phoneme-grapheme relationships, has also in research with Marchbanks *(10)* provided useful evidence about children's perceptions of letters and words. Apparently the first letter of the word is most significant; the last letter, next in importance. What bearing this information may have on the text of beginning reading is not yet clear. Also, the reading programs mentioned above seem to neglect the child's amazingly large vocabularly, the presumed value of the natural use of language, and the problems of the child with a non-standard dialect. As these materials are used increasingly in a variety of schools and classrooms, we shall undoubtedly gain further evidence about the effectiveness of the programs.

Knowledge of linguistics suggests other approaches to beginning reading. A number of scholars and teachers are testing the theory that the child will learn to read more easily and successfully if he recognizes early how language operates—if he can see system in the way that sentences are put together or, in effect, if he is introduced to rudimentary syntax *(1, 5, 6, 7)*. These researchers prefer to have the child introduced to meaningful sentences. Almost immediately he discovers how he may use patterns and parts within the sentences to express himself in various ways. Intonation, pitch, and stress, with which he is familiar in his spoken language, are used to change or reenforce the meaning of written words. To the editor, such approaches seem especially promising. They capitalize on the child's love of word play; they utilize the principle of discovery and build on the child's knowledge of language.

Less scientific and perhaps somewhat less innovative is the so-called language-experience approach to beginning reading. It seems to me that in using this approach teachers probably place more reliance upon what we know about children's language and learning and somewhat less on the phonology, morphology, and syntax; that is, the vocabulary, the sentence patterns, and even the dialect of the children are represented in "their written-down talk." Relationships between sound and symbol and the values of stress and juncture are observed and learned in meaningful familiar context. The child uses and extends his knowledge and skill in all aspects of language—speaking, listening, reading, and writing. Most reading programs make some use of the language-experience approach. Probably only a few use it as the basic method of instruction.

How best to utilize the scholar's and scientist's studies of dialect is still not clear. We know of course that a child should not be ridiculed or penalized because his dialect differs from so-called standard English. We know that hundreds of children speak one language in the schoolroom and another at home and with their companions. We know that hundreds of words which the child learns to recognize visually are quite different from the corresponding words which he utters. Some authorities are suggesting that these children should be introduced to reading as the reading of a second language. Certainly the principles of learning a foreign language can undoubtedly be applied, such as emphasis on aural-oral experiences and the mastery of familiar sentence patterns.

To my knowledge no one has seriously suggested transcribing dialect into written language for the purpose of instruction *(12)*. Recently, however, in discussing reading with a group of teachers in a large inner-city school where dialectical differences are a serious problem, the school principal suggested writing stories in the language of the children and using not only their experiences, vocabularies, and sentence patterns but also respelling words to represent the children's pronunciations. He asked if it was not as difficult for their pupils to identify with a strange language as with an unfamiliar setting or

with characters whose appearance differed from theirs. The idea was rejected promptly and dramatically. To these teachers, a major goal was to help the child overcome the dialect of the slum and the ghetto and acquire a language that would make him acceptable at another social level. Whatever advantages might accrue from the use of dialect would in this situation probably be offset by the attitude of teachers and perhaps of parents who view language as evidence of improved social status.

I have mentioned only a few of the most familiar and more obvious developments in beginning reading instruction. As I suggested earlier, we are often confused as some appear to be in conflict. If the child's spoken language is of prime importance, should his first reading experiences be with scientifically patterned sequences, strange context, and rather pointless discourse? Many critics have said that the child's progress has been shackled by vocabulary control. Are we in danger of substituting a new kind of control that will prove equally stultifying? Must we provide situations and characters with which the child can identify as many sociologists and psychologists suggest? If so, are animals or cartoon-like characters our best choice? Must reading bear the added burden of presenting an overview of American culture? Or is this aspect secondary to learning to read? How soon should children learn to read and how much time should be spent in reading? What are our goals?

## Looking Ahead

As the editor looks at both children's language and linguistics, he sees tremendous possibilities for change in materials of instruction. Indeed he sees that change is already here. But he continues to ask questions. How fast will we go, and what directions should we take? Are we perhaps moving toward a number of quite different types of reading programs and materials? Scholars obviously are in disagreement and are recommending varied approaches. Are some better adapted to the children who come to school with considerable sophistication in language and literature and others more suitable for those who may never have owned a book or heard a story read aloud? Shall we change our expectations for the achievement of young children? What final goals can we set?

More than twenty years ago I first heard the story, told then in dialect, of the stranger who stopped at a country crossroads to ask a Pennsylvania Dutch farmer how to get to Chambersburg. Yes, the farmer could tell the way. He tried one set of directions, then another, and another. Finally he said a mild oath and added, "You can't get from here to Chambersburg." Sometimes I feel the same about reading. I start out along the spelling-pattern route, with strict attention to regular phoneme-grapheme relationships. Then I try language experiences and discover that I need to know about language development. I investigate programing and individualization. Then I worry about the disadvantaged slum child and also the child of the suburbs. For a moment, I too say you can't get to Chambersburg. Perhaps the time has come to build a fine new throughway with many entering sideroads or "branches"—a great route which combines the best of what we know about language and learning to bring us to our destination of reading success for every child.

### REFERENCES


1. Allen, Robert L. "Better Reading Through the Recognition of Grammatical Relations," *The Reading Teacher,* 18 (December, 1964), 194-198.
2. Deutsch, Martin. "The Disadvantaged Child and the Learning Process: Some Social, Psychological, and Developmental Considerations." Paper presented at Ford Foundation work conference on curriculum and teaching in depressed urban areas. Teachers College, Columbia University, July, 1962.
3. Dominic, R. Thomas. "Oral Language Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socio-Economic Urban Areas." Unpublished doctoral dissertation, Wayne State University, 1961.
4. Gates, Arthur I. *Spelling Difficulties in 3,786 Words.* New York: Bureau of Publications, Teachers' College, Columbia University, 1937.
5. Goodman, Kenneth S. "Dialect Barriers to Reading Comprehension," *Elementary English,* XXXXII (December, 1965), 853-860. ————. "The Psycholinguistic Nature of the Reading Process." Unpublished paper presented at a symposium held at Wayne State University, May 3, 4, and 5, 1965.
6. Ives. Sumner. "Some Notes on Syntax and Meaning," *The Reading Teacher,* 18 (December, 1964), 179-183.
7. Lefevre, Carl A. *Linguistics and the Teaching of Reading.* New York: McGraw-Hill Book Company, 1962.
8. Loban, Walter D. *The Language of Elementary School Children.* National Council of Teachers of English, Champaign, Illinois, Research Report No. 1, 1963.
9. McDavid, Jr., Raven I. "Dialectology and the Teaching of Reading," *The Reading Teacher,* 18 (December, 1964), 206-213. ————. "Social Dialects: Cause or Symptom of Social Maladjustment," *Social Dialects and Language Learning.* National Council of Teachers of English, Champaign, Illinois, 1964, 3-7.
10. Marchbanks, Gabrielle and Levin, Harry. "Cues By Which Children Recognize Words," *Journal of Educational Psychology,* 1965, 56, 57-61.
11. Seashore, R. H. and Eckerson, L. D. "The Measurement of Individual Differences in General English Vocabularies," *Journal of Educational Psychology,* 31 (January, 1940), 14-38.
12. Shuy, Roger W. "Starting a Reading Program for Speakers of Sub-Group Dialects." Unpublished paper presented at the Pre-Convention Study Group on Linguistics and Reading at the IRA Meeting, May, 1965.
13. Strickland, Ruth G. *The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children.* Bulletin of the School of Education, Indiana University, Bloomington, Indiana, 38 (July, 1962).




127

44.

## 2. The Effective Use of Supplementary Materials in the Reading Program

110,

WALTER B. BARBE
Highlights for Children

THE PAST DECADE has been marked by a vast increase in the quality and variety of supplementary materials available for use in the reading program. Federal support for the purchase of supplementary materials has made materials heretofore unknown available in many school systems. The effective use of these materials now becomes the problem of prime importance.

Having supplementary materials available does not guarantee more effective reading instruction. Both the organization of the reading program and the method used in teaching reading are directly affected by the materials available. Clear statement and understanding of the goals of reading instruction, a knowledge of the need for a variety of specific teaching approaches, and the most effective use of supplementary materials are the concerns which face us today.

### Restatement of Goals

The availability of such a variety of reading materials requires that we both reexamine and restate the goals of reading instruction. The limited goal of merely acquiring the skills of reading was never acceptable, and is even less so today with both the rapid increase in knowledge and the obsolecence of much that was previously thought to be factual.

The acquisition of the skill of reading is a necessary step, but it is only one step toward the final goal of reading independently, either for information or pleasure. It is no longer sufficient that a child learn how to read; he must also be instilled with the desire to continue to read throughout his life. The "skills approach" to reading must be considered only a small part of the total reading program, with the "interest approach" being the broader, more comprehensive approach for which we must strive.

### Use of the Term "Supplementary"

It is likely that the use of terms such as "supplementary," "basic," and "basal" will diminish in the years ahead. In the days when the number of books was extremely limited, the use of a single text on a particular subject, or one book in the hands of a particular child, probably necessitated the selection of a book which best met the needs of the children of a particular locality. Such a book was referred to as the "basic" or "basal" text. As additional materials became available, often a second book was added which was frequently referred to as "supplementary" material. If the book closely followed the pattern of the original book, it was sometimes referred to as a "co-basal" text. Almost tragically, there was a tendency to extend the reading program by additional "basal readers" sometimes to the point of excluding all other reading materials. If the goal of reading instruction is recognized as the development of permanent interest in reading in a wide variety of materials, the question can justifiably be raised as to why it should be necessary for a child to go into a second basal reader, instead of moving on into other reading material, preferably of his own choice.

Confusion exists over the use of the expression "supplementary readers" and the term "supplementary materials." It is possible that some individuals need additional work in supplementary readers. But for the most part those children who are not successful in the basal reader program would better move to the use of supplementary materials than to another reader different only in minor ways from the one in which they failed. And for those children who were successful in acquiring the skills through the use of a basal reader, one must also question the need for the use of an additional basal reader. The importance of extending the child's reading experiences beyond the basal reader is so great that teachers must be ready to move as rapidly as possible

128.

in this direction, rather than be reluctant to leave the security of the rigid pattern prescribed in the basal series.

### Materials Referred to as Supplementary

Whether or not materials may be defined as "supplementary" may be determined by the manner in which they are used. Any material may be considered supplementary if it supports learning in a particular area. By the same token, if any particular material is used primarily as the source of information for a particular subject, or even unit, it then becomes "basic" and not supplementary material. In the teaching of virtually every content field, there can be little justification today for the use of "basic" material, particularly to the point where it excludes the use of a wide variety of supplementary materials. In the teaching of reading, there are many reasons to believe that there is less need for a basal text today than ever before. In some situations more so than others and for some teachers more so than others, the basal text approach to teaching reading may be necessary; but the extensive use of supplementary materials in such a program is absolutely necessary. Basal readers may be used as supplementary materials, not supplementing another basal series but instead supplementing a wide variety of other reading materials.

Library books (referred to as trade books) should make up the great majority of the supplementary materials used in a reading program. These books should be on a wide variety of reading levels, in various interest areas, of varying lengths (from short stories to full length books), both hardbound and paperbound, and with both "modern" and "classical" titles. They should include factual materials as well as fictional. Factual materials should represent varying points of view, and books on the same topic should be of varying reading levels. Multiple copies of certain titles which are particularly suitable for children of a specific age or interest level should be available.

The adult population in the United States is a magazine and newspaper reading population. The effective reading of periodicals should begin in the early elementary school, and such materials should be considered a part of the reading program. The advantage of magazines and newspapers is that they serve to update textbooks. Newspapers will, of course, be expendable; but children's magazines should not be. Cut-outs, coloring, and write-ins serve to limit the use of a magazine as a supplementary material in the reading program for its use is limited to one child. One of the greatest values of a children's magazine as supplementary material in the reading program is that it can contain material at different reading levels. Children of limited reading ability may enjoy the same magazine that children of higher reading level enjoy.

The experience story, both individually written and group written, is of such importance that it deserves special attention as a valuable supplementary material. Preserving experience stories and rereading them later has been found to be effective at all levels. The preparation of the experience story is described by Lee and Allen in *Learning to Read Through Experience* (Appleton-Century-Crofts).

The use of such materials as film, filmstrips, large charts, and the blackboard serves a specific purpose which is bound to be of great value at the beginning reading program. Children frequently have difficulty reading smaller print and working on material close at hand. When the material is in larger print and further away from them, they have been found to learn more readily. This is a common factor which seems to be present in those programs which report gains for a specific approach such as the "filmstrip."

Mechanical devices, which frequently cost large sums of money, have been found to have value in motivating children, but are of less value as supplementary materials in the reading programs if they are purchased in place of an adequate supply of interesting library reading material. The Language Master (Bell and Howell), which utilizes an audio-visual approach, appears to have noteworthy value beginning at first grade level. The variety of materials which can be prepared on the cards for visual presentation and auditory replay is unlimited. This is only one of many new mechanical devices which deserve examination, but should be purchased only in addition to a sound and effective reading program which includes

a wide variety of reading materials.

Games, word cards, records, flannel boards, and magnetic letters are all aids to teaching reading. Carefully selected and used at times when they are needed to support rather than replace the reading instructional program, they all have great value.

Worthy of special attention are the increasing numbers of collections of books designed for use at particular grade levels. Intended as supplementary materials in the classroom, these materials provide books and stories not previously available. Since they enhance the ultimate goal of reading, that is, developing both skills and interests in reading beyond merely learning how to read, they are worthy of special attention. The Owl Series (Holt, Rinehart and Winston) presents a set of forty books at kindergarten through second grade levels, forty books at second through fourth grade levels, and twenty books at fourth through sixth grade levels. In each of the three sets, there is an equal number of books in social studies, sciences, arithmetic, and literature. A similar series is *Invitations to Personal Reading* (Scott, Foresman & Co.). In this group there are three separate sets of 25 different books for each of the primary grades. Intended for the classroom library, both of these sets include teacher-aids. Because the books are purchased in sets, they cost considerably less per book than separately purchased books.

## Use of Supplementary Materials

The use of supplementary materials is more important today than ever before. The role of the basic text is greatly diminished so that the effective use of supplementary materials will determine the effectiveness of the instructional program. Only when a wide variety of supplementary materials is used can the child learn to make the transitional step from learning how to read to actually reading. Clearly, how supplementary materials are used is more important than what materials are used.

The attitude of the teacher toward supplementary materials influences the effectiveness of the material. If supplementary library books are treated merely as a means by which children are to be kept busy when they have finished their work in subject areas, it is likely that they will have little effect on many of the children. But if the reading and use of supplementary materials is made an exciting and important part of the school day, the child's skills in reading and interest in the process will be greatly enhanced.

Used most effectively the basal text, and even the workbook, can become supplementary material. The most effective teacher has used the lesson in the basal reader as one to be taught to those children who need work in a particular skill area, and she is not hesitant to tear the workbook apart and use only those pages with those children who need practice on a particular skill. This is a difficult step to take and one which can only be done gradually.

Supplementary materials provide the best means for correlating reading instruction with the total language arts program. Storytelling is an important part of the instructional program, both in listening to stories and in being able to tell them. But before children are able to tell stories, they must both hear stories and read stories themselves. Being able to write creatively comes from having read and listened to stories, and is not a separate process to be relegated to a certain period of a day only after other subjects have been disposed of. The wide use of supplementary materials will stimulate the child's desire to write and to tell stories, just as writing and telling stories will stimulate the child to want to read more stories. The language experience approach to teaching all of the language arts fits well into the increased availability of supplementary materials and provides the means whereby more effective use of supplementary materials may be attained.

It is especially important that supplementary materials be readily available to the children. For this reason, it is imperative that materials be located in the classroom and not in a storeroom or in a library in another part of the school. The central library serves a particular purpose, and this purpose is different from that of the classroom library. Extensive use of a classroom library will enhance the role of the central library. The main problem is to know which material should be in the

classroom library and which should be in the central library. But because the availability of material is so necessary for its most effective use, when in doubt, materials should be placed in a spot where they are most readily available to the largest number of students. Some things, such as encyclopedias and dictionaries, should be in each classroom, as should a basic collection of books which children may wish to use in the classroom when they finish with other material. Also, there is a need for multiple copies of the same titles which students may wish to use together. In addition to this, numbers of books should be sent from the central library to the classroom. These are the materials used as part of the instructional reading program. Individual titles, to be read by children for information or pleasure, generally will be checked out of the central library.

Although a widespread use of supplementary materials is an integral part of the reading instructional program, this does not eliminate the need for free reading and library periods. There must still be that time when the child is allowed to go to the library and collect anything he wants, for any one of a variety of reasons which might not be specifically identified even by the child himself. Too much assigning of books to be read for reports deprives the child of the pleasure of reading for no other reason than because he wants to.

## Summary

The effective use of supplementary materials in a reading program will depend to a large degree upon the teacher. Of course, the materials must be available, but the teacher must recognize that it is from the use of supplementary materials that the children will most likely benefit the most. Rigid adherence to the basal text will minimize effective learning and deprive the children of the wide variety of knowledge and skills which are needed by children at the very earliest ages. To the extent that we select supplementary material wisely, provide for its most efficient use, and encourage children to become involved in the broad concept of learning, we will be successful as effective teachers of reading.

45.

Vol. 9, 64



## 4. Experimental Applications of Cloze Tests

JOHN R. BORMUTH

CLOZE TESTS, like some other new and useful research tools, were used by researchers before enough was known about them to be sure that they would yield reliable results. The present study attempted to determine the reliability of cloze tests when they are used for measuring the comprehension difficulties of passages. The questions investigated were the following: (1) Do the different cloze test forms that can be made from the same passage differ in difficulty? (2) If they do differ, by how much? (3) How are these differences affected by the number of items included in the test forms?

Cloze tests are made by replacing every fifth word in a passage with an underlined blank of a standard length. Subjects taking the tests are instructed to figure out what word was taken out of each space and to write it in. The tests are usually given without letting the subjects read the passages from which they are made. Five different test forms can be made from a single passage by beginning the deletion process with successive words. For example, in one form words 1, 6, 11, etc. and in another form words 2, 7, 12, etc. would be deleted. The difficulty of a test form is found by converting the scores of subjects to percentages and finding the mean. Passage difficulty, as distinguished from test form difficulty, is found by making all five of the forms over a passage, administering a different form to each of five matched groups, finding the difficulty of each and then averaging the difficulties of the five forms.

When comparing the difficulties of passages, a researcher commonly uses only a single test form over each of his passages. This necessarily forces him to assume that he will obtain the same difficulty value from the form that he actually made as he would have obtained from any of the five forms that he could have made. The problem with this assumption is that words differ greatly in difficulty when they appear as cloze test items. Since cloze test forms are actually samples of the words in a passage, the difficulty of a form will almost always vary to some extent from the difficulty of the passage from which it was made and from the difficulties of the other test forms over that passage. Consequently, the researcher has the problem of deciding whether test forms over different passages differ because of an actual difference in the difficulties of the passages or because of the particular cloze test forms that he happened to have made over each passage.

Little is known of how the difficulties of forms made from the same passage differ, and virtually nothing is known of how large these differences can be expected to be at any given test length. Taylor[1] made five 35-item test forms from the same passage, administered a different one to each of five randomly selected groups, and, starting with the first item in each form, computed a cumulative mean at each item. He found that when the forms included few items the means fluctuated erratically and differed widely among forms. As more items were included in the forms, their means stabilized and tended to converge on each other. However, a significant difference was found among the means when all 35 items had been included in the scores.

### Procedures

Five cloze test forms of 50 items each

[1]Wilson L. Taylor. *Application of 'Close' and Entropy Measures to the Study of Contextual Constraint in Samples of Continuous Prose.* Doctor's thesis. Urbana: University of Illinois, 1954.

132.

were made from each of 20 passages. The deletion process was begun with the first word in the second sentence of each passage. In making the different forms the deletion process was begun with successive words so that every word in a 250-word section of the passage appeared as a deletion item in one of the forms.

Of the 20 passages used, four were selected from each of the subject matter areas of literature, history, geography, biological science, and physical science. The books from which they were selected were literary works and textbooks. Within each subject matter area the passages ranged in Dale-Chall[2] readability from about the 4.0 to 8.0 grade levels of difficulty.

Subjects to whom the tests were given constituted the entire enrollments of grades 4 through 8 in a small city. They were first given the Stanford Reading Achievement Test and the total scores were used for dividing them into five groups having matched means and distributions. There were 139 subjects in each group. A different form of the cloze test made from each passage was administered to each of the five groups. Every subject in every group took one of the forms over each of the 20 passages.

Responses to the items were counted correct when they were the same as the deleted words. Phonetic spellings were accepted, if they were otherwise correct.

The test forms were divided after every fifth item to form ten test lengths. As the tests were scored a cumulative score was recorded after every fifth item in the test. These scores were then converted to percentage scores and used to compute a test form difficulty at each test length. The test form difficulties were, in turn, used to compute a passage difficulty at each test length.

The differences among the mean scores on the five different test forms over the same passage were tested for significance using a one by five analysis of variance design. This analysis was performed separately for each test length within each passage.

The range was found between the highest and lowest test form mean at each of the test lengths within each passage. The mean, standard deviation and range of these values were found for these values when they were grouped by test length.

The variability of the test form means around their respective passage means was calculated for each test length. For convenience this statistic was labeled *standard test form error*. It was calculated by subtracting each test form difficulty from the difficulty of the passage at that test length. These differences were grouped according to test length and pooled across tests. They were then squared, summed, divided by the number of deviation values in the calculation, and the square root extracted.

## Results

Table 1 summarizes the results obtained from analyzing the variance of the scores on the test forms over the same passage. They are grouped in the table according to the test lengths at which each analysis was performed.

This analysis showed that there were significant differences among the means

[2]Edgar Dale and Jeanne S. Chall. "A Formula for Predicting Readability," *Educational Research Bulletin* 27:11-20, 28; January 1948.

TABLE 1

NUMBER OF DIFFERENCES AMONG EACH OF THE SETS OF MEANS OBTAINED FROM THE FIVE CLOZE TEST FORMS MADE FROM THE SAME PASSAGE THAT REACHED VARIOUS LEVELS OF SIGNIFICANCE AT VARIOUS TEST LENGTHS (Number of degrees of freedom 4/690)

| Levels of Significance | Number of Items Included in Each Test Form | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| .01 | 17 | 14 | 10 | 11 | 9 | 6 | 4 | 5 | 3 | 5 |
| .05 | 3 | 4 | 7 | 4 | 7 | 5 | 7 | 6 | 9 | 8 |
| Not Significant | 0 | 2 | 3 | 5 | 4 | 9 | 9 | 9 | 8 | 7 |
| Number of Passages | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

133.

of the tests at all of the test lengths examined in this study. It also showed that, as more items were included in the tests, there was a steady, if somewhat irregular, decrease in the number of sets of means that differed significantly at any of the confidence levels shown. This decrease was most rapid among tests containing the fewest items and became less sharply defined as test lengths were increased.

Table 2 summarizes the results when the range was found between the highest and lowest test form means over each passage and at each test length. In the table these are expressed as percentages of correct responses and are grouped by the lengths of the tests upon which they were calculated.

TABLE 2

SIZES OF THE RANGES BETWEEN THE HIGHEST AND LOWEST TEST FORM MEANS IN EACH SET OF FIVE TEST FORMS MADE OVER THE SAME PASSAGE, CALCULATED AT EACH TEST LENGTH

| Statistic | Number of Items Included in Each Test Form | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| Mean | 23.6 | 14.4 | 10.9 | 10.0 | 8.9 | 7.8 | 7.3 | 7.4 | 7.0 | 6.8 |
| Standard Deviation | 7.7 | 4.9 | 4.0 | 3.9 | 3.4 | 3.7 | 3.0 | 2.2 | 2.4 | 2.1 |
| Smallest Range | 10.6 | 7.8 | 3.5 | 4.7 | 3.2 | 3.0 | 3.2 | 4.3 | 3.0 | 3.0 |
| Greatest Range | 37.6 | 26.4 | 18.7 | 15.3 | 17.0 | 17.6 | 15.9 | 13.2 | 13.5 | 11.9 |

This table shows what one would have been lead to expect from an examination of Table 1, namely that the differences among test forms that are made from the same passage tend to diminish as more items are included in the tests and that the rate of diminuation decreases as the number of items included in the test forms becomes larger. It is worth noting that, even when the test forms contained 50 items, large ranges continued to appear. No set of means at this test length had a range of less than three points and one showed a range of almost twelve points. Approximately two-thirds of these sets of means at this test length had ranges of between 4.7 and 8.9 percentage points.

The *standard test form errors* are shown in Table 3. These are the standard deviations calculated on the deviation of the mean of each test form from the passage difficulty at that test length. In the table they are shown for each of the test lengths studied.

TABLE 3

STANDARD TEST FORM ERRORS CALCULATED FOR EACH TEST LENGTH FROM THE DEVIATIONS OF THE TEST FORM MEANS AROUND THEIR RESPECTIVE PASSAGE MEANS

| Number of Items Included in Each Test Form | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 12.7 | 8.2 | 6.4 | 5.7 | 5.2 | 4.6 | 4.2 | 4.1 | 4.0 | 3.8 |

The *standard test form errors* followed the same patterns that were observed in the other two analyses. That is, the means of the test forms made from the same passage showed less variability around their own passage mean as the number of items included in the tests became larger and this reduction in variability was greatest on the shorter test lengths and diminished as the numbers of items in the test forms were increased.

## Discussion

These results suggest that test forms made from the same passage, if made sufficiently long, might come to yield nearly identical mean difficulties. However, the tests would have to be very long,

perhaps too long to be of practical value for designing research studies. Consequently, it would be wise for researchers to use more than one cloze test form over the passages that they are studying, if it is important that they obtain a precise determination of the difficulty of the passage.

But this must not be construed as meaning that a researcher cannot use only a single test form over each of the passages that he wants to study. It merely means that he must now take into account another source of error in his observations. He must now consider both the probability that the test forms that he used were drawn from passages that did not differ in difficulty and the probability that he would have obtained the same results had he drawn other samples of subjects.

The *standard test form error* was calculated for the purpose of aiding the researcher in determining whether test forms that he used were drawn from passages of equal difficulties. The *standard test form error* is interpreted here as the standard error with which a mean on a single cloze test form of a given length approximates the mean difficulty of the passage from which it was made where passage difficulty is determined by averaging the means of all five of the test forms over that passage at that test length.

## Summary and Conclusions

The purpose of this study was to find out (1) whether the five different forms of a cloze test that can be made from the same passage differed in difficulty, (2) if so, by how much, and (3) whether these differences were affected by the number of items included in the test forms. Five cloze test forms were made over each of 20 passages. A different form was given to each of five groups of 139 students each who were enrolled in grades 4 through 8. The groups were matched with respect to means and distributions of scores on a standardized test of reading ability. The cloze tests were divided after every fifth test item forming tests of ten different lengths. A cumulative score was noted for each subject at each test length.

The conclusions reached in this study are as follows:

1. The means on different cloze test forms that are made from the same passage differ significantly for tests of 50 items or less. There were significant differences among over half of the 20 sets of test forms used in this study.

2. The differences in difficulty among test forms made from the same passage tend to diminish as more items are included in the test forms.

3. The practice of using only a single cloze test form over each of the passages that a researcher is studying should probably be avoided where precise determinations of passage difficulties are needed and especially when the passages are short. In such experiments all five forms should be used.

4. When single forms are used in experiments it is necessary to show that the observed differences are sufficiently large to assure that they did not arise solely because of the test forms that the experimenter happened to make over his passages. The *standard test form error* was calculated to aid in determining this.

46.

Vol.7, 62

# 2. Evaluating Materials for Reading Instruction—Intermediate Grades

190.

THORSTEN CARLSON

The quality of any accomplishment is a function of the skill of the craftsman. But of great importance in determining the quality is also the adequacy of the tools he uses. It is appropriate, therefore, to evaluate the adequacy of the materials available for the teaching of reading. To evaluate and select materials, however, it is first necessary to understand the nature of the instructional task for which the materials are needed.

## The Nature of the Instructional Task

The role of interest is very important in reading achievement, and will offset many deficiencies in skills instruction, but pupils who are to become good readers must be proficient in a number of facilitating skills. A list of such skills presupposes that reading is a very complex process. It is true that the research evidence does not establish conclusively the validity of a multifaceted concept of reading. Research, for example, by Davis[1] isolates only a few

[1]Frederick B. Davis, "Fundamental Factors of Comprehension," *Psychometrica*, 9 (1944), pp. 185-197.



pure factors. On the other hand, research such as that by Guilford[2] seems to indicate that reading ability, like intellect, may be very complex.

Regardless of our interpretation of the research evidence, there can be little objection to a varied instructional approach. Dangers inhere only when minute factors are considered in diagnosis, thus leading to fragmented instruction without appropriate recognition of common elements in learning.

## Panaceas Oversimplify Evaluation

Oversimplification of the reading task or the failure to recognize its complexity has occasionally resulted in certain "panaceas." Such panaceas are often disarmingly simple. They are usually very logical. They generally include a generous portion of the so-called "true and tried." They are usually purported to be usable by all teachers, in all situations, and always usable in the same way. They are, it is claimed, good for all children, and for all teachers.

Phonics, in various forms, has often been presented as a singularly successful approach to the reading instructional task. It meets many of the requirements of a "panacea." Often such emphasis is tied to outmoded material for which many people may have deep sentimental attachments. Acceptance of such a simplified approach to the teaching of reading would have a profound effect on the problem of evaluation and selection of materials.

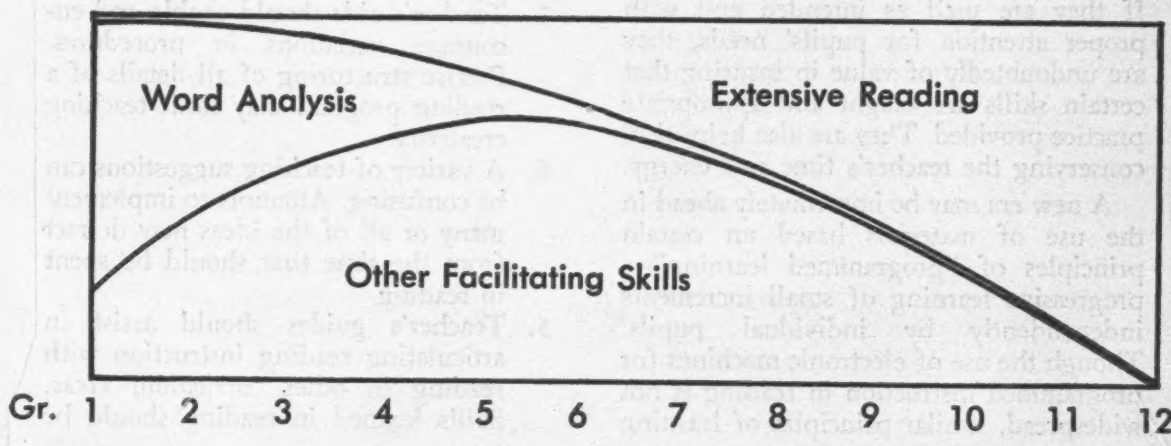
[2]J. P. Guilford, "Frontiers in Thinking That Teachers Should Know About," *The Reading Teacher*, 13 (Feb., 1960), pp. 176-182.

Related to the phonics approach are the round-robin oral reading procedures. Often they are related to a rather exclusive reliance on basal readers. Little consideration is given to the broader conceptions of reading methods as presented and practiced by modern basal reader programs. Such procedures are flagrantly wasteful of a pupil's time. They are attractive to one who would simplify the task of teaching and who wishes to reduce the problem of evaluation and selection of materials to minimal proportions.

Then there are those who propose the inducement of pupil interest as the panacea in reading. Such procedures presume on every teacher's part, sufficient knowledge, creativity, sense of organization, and time for the incidental instruction in reading skills. Procedures that emphasize interest and self-selection of materials, however, cannot share the merit of simplifying the evaluation and selection of materials. The whole world of appropriate children's books and other reading material must be considered.

Proposals that would ostensibly simplify the task of teaching reading also disregard the necessity of changes in the proportions of time devoted to the three major instructional emphases. This thought is portrayed in the diagram below.

A total program must consider the appropriate proportionate emphasis at each level of reading growth and development. A broad program using a variety of materials including basal readers will generally insure an appropriate balance in emphases at all levels of reading development.




136.

## Wide Variety of Materials Needed

A balanced program in reading instruction requires a wide variety of activities for which many and various materials are necessary. Involved evaluation procedures are quite commonly used in the selection of basal readers with minimal evaluation in the selection of much other material. It is probable that the thoroughness of evaluation has some relationship to the cost of the material.

The basal reader and its satellite material is an important part of the reading instructional program. Perhaps its greatest importance is at the primary level where factors of gradation of reading difficulty and organization of learning experiences in the word recognition skills are important to success in learning. Proportionally more time is also devoted to reading in the basal materials at the primary grade levels than is true at the intermediate grade levels.

Individual titles (commonly thought of as the library collection), reference materials, current periodicals, newspapers, pamphlets, and bulletins assume a greater importance in the reading instructional program at succeeding grades throughout the intermediate and secondary levels. This is also true of the wide variety of informational books that the pupil reads in the curriculum areas of the social studies, science, and mathematics.

There is a vast array of materials designed for the development of specific skills. Included are the workbooks that accompany the basal readers and many workbooks designed for use with, or independently of, a basal series. Certain dangers inhere in the use of workbooks. If they are used as intended and with proper attention for pupils' needs, they are undoubtedly of value in insuring that certain skills are taught and appropriate practice provided. They are also helpful in conserving the teacher's time and energy.

A new era may be immediately ahead in the use of materials based on certain principles of "programmed learning"—progressive learning of small increments independently by individual pupils. Though the use of electronic machines for programmed instruction in reading is not widespread, similar principles of learning are applied in scrambled workbooks, and in highly organized files of reading selections for the development of word recognition, vocabulary, and comprehension skills.

Audio-visual materials are also aspects of a comprehensive reading program. Basal reader programs encompass many such correlated materials. In addition to such related material, there is available a wide selection of films, film strips, recordings, and picture material. Reading skills carry a heavy responsibility for learning in the elementary classroom. The required reading undoubtedly becomes a discouraging task for many pupils. Could audio-visual media play a greater role in learning and thus reduce the amount of reading "required?" It may be that by requiring less, more will be read.

Finally, diagnostic and achievement tests, a necessary part of a reading program, need to be evaluated. They are an indispensible aid to understanding the instructional needs of pupils.

## Issues in Evaluation

Many issues must be considered and resolved in the evaluation of materials. Their resolution will depend upon the evaluator's point of view on the teaching of reading. A number of these issues are presented for consideration.

1. Any materials in reading cannot be evaluated effectively without considering the role of all materials used in reading instruction.
2. The basal reader should supply the "warp and woof" of the reading program with other materials serving supplementary functions.
3. Teacher's aids should enable and encourage variations in procedures. Precise structuring of all details of a reading program may limit teaching creativity.
4. A variety of teaching suggestions can be confusing. Attempts to implement many or all of the ideas may detract from the time that should be spent in reading.
5. Teacher's guides should assist in articulating reading instruction with reading in other curriculum areas. Skills learned in reading should be

applied and further taught in all curriculum areas.

6. The sum total of reading materials should provide breadth in reading interests.
7. The instruction in phonics should be based on accurate description of the sounds of our language. Phonemic analyses indicate that we may be teaching in sounds, distinctions that do not exist, and asking for identifications that are not really represented as we commonly think they are. For example, to ask a child to distinguish between the vowel sounds in *ear* and *sit* is to ask for a distinction that does not exist. To identify the vowel sound in *hot* as short *o* and the first vowel sound in *father* as two dot *a* may be teaching differences that do not exist.[3]
8. Remedial teaching of phonics should be distinguished from developmental teaching. To use third grade procedures for reteaching in the fifth grade is hardly appropriate.
9. Procedures of measurement and evaluation should be a part of the reading instructional program. Norms should be furnished to assist in evaluative judgments of pupils' achievement.
10. Workbooks and similar materials should be as nearly self-administering as possible. Programmed materials, which use small, graduated increments of learning with immediate pupil knowledge of success, should be used extensively.
11. Example, rather than precept, should be used in instilling important attitudes, ideals, and appreciations. Character building, as an important curriculum objective must be facilitated by adequate materials.

## Conclusion

Materials properly evaluated and selected, when coupled with good teaching will eventuate in an impelling reading habit, instantaneous word recognition, and concomitant development in the thought processes. Such achievement enables the creative translation of written communication into the evolving patterns of ideas in an active mind. These objectives can become realities only if adequate tools are provided for teachers and pupils.

[3] *Webster's Elementary Dictionary*. Springfield, Mass.: G. & C. Merriam Co., 1961.

138.

47.

## 2. On Writing Americana for American Children

272.

CARL CARMER

The most fortunate fact about my composing books for young people was that I wrote my first so-called juvenile for adults. Before its publication I had been broadcasting over CBS a program of folk-tales which I had collected while I had been working on my *Stars Fell on Alabama* and



*Listen for a Lonesome Drum.* My publishers suggested that these stories which I had been telling over the air on Monday nights at 10:30—to what I hoped was an adult audience—might make an interesting book. I agreed—and was mightily surprised, when *The Hurricane's Children* was published, to discover that it had been brought out by the firm's "juvenile department" for an age group identified on the jacket as "8 to 12."

This led me to the realization that, if the prose I wrote for adults could be so described I had better not try "writing down" to children for fear I would write myself right out of the bottom of the thermometer. I have made it my policy never to do so.

Since this first book for young people (admirably illustrated with pen-and-ink drawings by Elizabeth Black Carmer who I am often designated as "husband of") sold well and brought me cordial letters from young scholars who could recognize a fellow of their mental age-group when he put words on paper, I have managed to intersperse books for children with my books for adults ever since. In all of them I have tried to capture the American folk-quality for the reasons I am about to present.

The poet Stephen Vincent Benét, my former co-editor of the *Rivers of America Series,* once said, "It's always seemed to me that legends and yarns and folk-tales are as much a part of the real history of a country as proclamations and provisos and constitutional amendments." I agree with this and would add that since the latter trio of historic documents are hardly for children, legends, yarns, and folk-tales certainly are. There is no better way of bringing our children up in the American tradition, of surrounding them with the atmosphere of our cherished land as our fathers and our forefathers knew it, than by supplying them with the creative products of the American folk-imagination. Our folklore is the poetry of the composite American mind. It is a crop grown from American roots—and in these days of ordeal those roots have become very dear. The skilled English story-teller W. Somerset Maugham, told a significant truth when he wrote, "The faculty for myth is innate in the human race. It is the protest of romance against the commonplace of life." If it is innate then, let us develop it at the very beginning of a child's instruction for in that direction lies an enthusiasm both for words and for content. The clear stream of our native folk-lore combines equal parts of history, poetic imagery and love for beautiful sound. It is the enemy of the ordinary and the uninspired. It is the great destroyer of boredom—and boredom among child-readers is the dragon that would kill the culture that may one day be ours, at its source.

If we are to have a culture that will make us blessed among nations, I would suggest then that those of us who are teachers demand in the books American children are destined to read more than the concept that words are stainless steel tools of communication meant primarily to enable us to ask for food, drink, clothing and money. Words are a delight in themselves, therefore an end in themselves. Words come as Wordsworth once said children come, "trailing clouds of glory," and each time a word becomes "le mot juste" it is born again, fraught with more meaning. I have read books for children — particularly textbooks — in which words have been strangled to the point where even the dictionary's flat statements of their meanings seem poetic by comparison. There is an aura about some words—even words in frequent use —which can be ruthlessly dispelled by dull and unimaginative writers. There are rhythms in sequences of words of which those same writers are not even aware.

I have spoken of the value that lies in the fanciful folk-myth. There are greater treasures than this.

One of these lies in history. If folk-lore is based on creative imagination, history frequently lies far out in the realm of the unimaginable. Anyone of you who has been reading current history for a decade knows that history has become so fantastic that we live with the incredible about us. We live in a world beyond the imaginings of even the most creative. Hence the writing of history for children is a challenge that must be met by interpreters who possess genius and not by guessing dullards. The story of our country must be brought alive, dramatized, made vivid

139.

for even very young Americans that they may begin to acquire from a knowledge of the nation's past experiences the common sense and judgment that will lead us into a happy future.

Hence the second and most precious of our treasures lies in the minds of America's most gifted writers. If I were you I would serve notice on them that if they would preserve, protect, encourage, develop the democratic culture that has given them freedom of expression, let them often use their gifts in writing books for children in order that young readers may be brought up surrounded by the best writing of which our country's poets and story-tellers are capable.

Our culture begins in the minds of the very young. If we wait to try to superimpose it on the minds of high school students, we have waited too long. I have seen boys and girls graduate from our colleges in cap and gown—students by the dozen who were incapable of writing correctly a paragraph of five sentences, students who have fulfilled their "required reading" assignments under the impression that ability to summarize the plot of a novel is the acme of appraisal and criticism. I have heard teachers say that "poetry" (as if all poetry were run off on the same assembly belt) is "too hard" for children in the elementary school grades. Is it not possible that the reason Johnny can't read is that teacher can't read?

Teaching is a communication of enthusiasm. That is why all the teaching machines in the world cannot supplant one wildly enthusiastic teacher.

If the "American Way" must be preserved, let us be sure that we are saving more than a plastic carton containing a univac, or a capsule inhabited by a self-serving monkey.

I have been trying to think, presumptuously I fear—and apologetically—of the kinds of books-for-children I would advise writers-for-children *not* to write.

The first book to be avoided at all costs is that written from any kind of elevation.

The second (and in this I heartily agree with that maestro, Dr. Seuss) is the cute book. The only thing worse for children than a book by a writer who thinks he is cute, is a book by a writer who *parents* think is cute.

The third volume of my abhorrence is the pedantic book that sounds as if the writer had written it with a word-list in one hand, a word-counter in the other, and the typewriter in his teeth.

48.

# MATERIALS OF READING

## A. PRIMARY LEVEL

### 1. Correct Use of Basal Readers

FAYE CATLEDGE
Dallas Independent School District

APPROXIMATELY 95 per cent of today's schools use basic readers. In light of this recent estimate, we cannot over-emphasize the importance of using the basic readers effectively for consistent, orderly, systematic, and sequential development of basic reading skills.

Recently I was given the responsibility of studying most of the basic reading series currently on the market. The analysis revealed that those published by the major companies have many points in common, and I am convinced that children can learn to read by using any one of them. If you have taught as long as I have, at some time or other you have used most of these basic readers and you have taught children to read. We each have our own professional opinions, of course, as to which series can help the teacher do the most efficient and effective instructional job in reading.

Any basic reader to be used effectively requires that the teacher study and have an understanding of the authors' philosophy, that she be familiar with the organization of the teacher's edition, and that she implement the teaching units according to the authors' plan.

The reading series you have can be only as effective as the teacher makes it. Too often the basal reader is thought of as a collection of stories, and the teacher honestly believes that she has taught a basal reading lesson because the children have read a story from the book labeled "basal reader."

#### The How-To Book

The stories in each basic reader are interesting and the children do enjoy reading them. The basal reader, however, —is the skills text and is not intended to be thought of as an anthology. Keep in mind that reading is a skill and not a subject. No one reads reading. Do not become so concerned with teaching children to read that you neglect to teach them *how* to read. The basic reader is the "how to" book. This is its chief purpose.

The stories in these particular books are carefully selected for a definite purpose. They provide appropriate reading material to encourage concentrated practice in specific basic reading skills. You know the skills — word-attack, phonetic analysis, structural analysis, comprehension, listening, interpretation of punctuation marks, voice intonation to convey the author's intended meaning, and so on.

These skills lessons are the heart, the keystone, the reason for the basic reader's being. Are you ever tempted to omit a part of a lesson plan because you think the group has acquired a particular skill? The next time you are tempted try a little sampling of the skill to be certain that the pupils have mastered it before you skip it.

Each basic reader provides repeated opportunities for the reading teacher to analyze each child's reading problems and to assess daily his progress in basic skills. If these opportunities for diagnosis, reteaching, and reinforcement are not taken advantage of, the child and the teacher soon reach the frustration level for reading instruction.

#### Reading Skills in Content Areas

Now, you have taught the basal reading lessons the right way and consequently you have instilled the reading skills that will make the child an independent reader. What happens when you have finished with the lesson in the basic reader?

Here is one graphic way to help you visualize the tie-in of the skills lessons with every other reading situation. Draw an outline of your hand. Across the palm



141.

letter the two words Basal Reading and label the five extended fingers Creative Arts, Language Arts, Social Studies, Mathematics, and Health-Science. The analogy is that you need to have the basic reading skills in the palm of your hand, but you must not stop there. It is just plain common sense that these reading skills flow consistently into every area of the child's school day – his social studies, spelling, mathematics, science, or directions on the chalkboard. I recently showed this idea to a friend who made the comment, "How unfortunate it would be if we had only the palm or only the fingers." Competency in the essential reading skills is necessary if pupils are to read with understanding in the content fields. Children must apply reading skills throughout the day in every curriculum area to help them acquire the specialized vocabularies and to read the content subjects with comprehension. It will be a red-letter day when children demand meaning from all written material and settle for nothing less.

To illustrate the carry-over of these skills into the content areas, I like to recall an experience of a third grade social studies class. The basic readers used by this group had many figures of speech which required lessons on interpretation. The social studies lesson was centered around neighborhood pets and some of the problems they created. One paragraph stated that the neighbors thought two black lambs were all right but a goat was the last straw.

The class was asked what the phrase "the last straw" meant to them. After some interchange between pupils and teacher, one boy excitedly announced, "The neighbors do not mind the two black lambs but that goat has got to go!"

### Readiness Book—A Skills Text

Now, let's take up the readiness book – the first textbook in the majority of the basal reading series. Teachers must recognize, realize, and understand that the readiness book is an important part of the basal reading program. We are aware, of course, that some readiness programs offer more than others.

Occasionally a teacher seems to think of the readiness program as a waiting period and believes that basal reading really begins with the first pre-primer. The pupils, as well as the teacher, need to recognize that the readiness book is a basic reader, a skills text, and that every page is there for an important and specific purpose. We can not over emphasize the fact that the pupil's mastery of the skills taught in the readiness program is basic to his future success in unlocking the printed word.

As recently as last fall I heard of a first-grade class that "went through" a sixty-four page readiness book in nine days. I strongly question whether the teacher understood the purpose of the readiness program or how to teach the important lessons the book contained. I do not believe that those pupils learned the fundamental skills that the readiness program provided.

### Reading Makes Sense

The teacher who is overjoyed that a child has learned to *say* the printed words may be enthusiastically accepting word calling for reading. This is regrettable. From the very beginning it is the teacher's professional responsibility to work diligently throughout the day every day to help each child realize that the words he reads should sound as if he were talking. If he is reading conversation, his voice should sound as it would if he were the character. If he is reading narration, help him understand that he is the storyteller and must make it interesting. Please do not allow him to settle for anything less than his best. Incidently, the child's natural flow of speech is the teacher's best guide for what she has a right to expect from the individual pupil in oral reading.

All this is hard work and takes consistency, persistency, and untold patience. I must say that I know of no easy or magic way to teach a child to read. Experience and observation have led to the conclusion that it is accomplished by main strength and awkwardness.

As you work with beginning readers, bear in mind that they have many concerns and problems other than the inter-

pretation of those abstract symbols — the first being how to hold the book and even how to turn the pages. There are ways you can help overcome some of these distractions. For example, a first-grade group was reading in a halting manner with pauses between words. This was aptly described by one little girl in the group as "leaving spaces with your voice." The reading lesson was taped for playback so the children could listen to themselves. This permitted them to concentrate on hearing themselves as others hear them. Billy, on hearing himself read, understood for the first time what was meant by leaving spaces with his voice.

### New Words in Context

It is significant that more and more of the basic series are using the teaching technique of introducing new words in context. A word in isolation has little or no meaning even for you or me. Let's take the word "pitch" as an example. What does it mean to you? According to one dictionary it has at least nine meanings as a noun and approximately eleven meanings as a verb. With the introduction of each new word in context, the pupils have repeated opportunities to practice word-attack skills as they unlock the new words.

### Telling vs. Teaching

When a pupil has difficulty with a word, what procedures and teaching techniques does the teacher use to make the printed symbols reproduce the mental images which will help the pupil recall or recognize the word the next time he sees it? How has this learning situation been reinforced in order to make it a profitable experience for him? Did she tell him the word or did she help him use the appropriate skills to work out the word for himself?

I do not know the source of this quote but I wish every reading teacher could keep it before her:

*He who learns by finding out has seven fold*
*The skill of him who learns by being told.*

This is another way of saying that telling is not teaching. Each time a pupil uses his word-attack skills to unlock a strange word, or uses the context to determine the appropriate meaning of a known word, he strengthens his independence as a reader.

All of us are familiar with the old adage that practice makes perfect and we know, also, the fallacy of the statement. Practice, however, does make permanent. We need, therefore, to be certain that it is the right kind of practice.

No basal reading series alone can constitute a balanced, well-rounded reading program. Any reading program that consists of basal reading only is indeed a poverty stricken program.

Keep in mind that the basic reader is the "how to" book. Through this book the pupils can learn how to unlock strange words, how to interpret punctuation marks, how to use context to choose the right meaning, how to draw conclusions, how to get the main idea, and how to use all the other basic reading skills.

A delightful poem by Murlee Hart of the Denver Public Schools describes reading thus

TO READ

*To state the printed symbol marching on*
*Across the page is not to read. To hold*
*The lips in phonic shape while forming each cold*
*Consonant in stolid tones makes wan*
*And dreary issue, Help him see and smell*
*And touch and taste and feel the pulsing page*
*Till heart and mind and body all engage*
*In each related tale; till he can tell*
*How pictured Susan saw the raindrops trickle*
*From the jeweled leaves, sated her nose*
*With springtime's damp perfume and pushed her toes*
*Into exquisite ooze with squishy tickle,*



*When he becomes a part of every deed*
*The printed page narrates, this is to read.*

49.

## 4. Children's Literature

### a. Lodestones in Children's Books

183.

MILDRED A. DAWSON

All of our lives each of us has been drawn to something or other. When we were still crawling about on all fours, it was probably the glistening, brilliantly colored objects about us—especially if these moved. Time and again our elders said, "No! No!" and possibly spatted our hands as we persisted in reaching for the gay ornaments that attracted us. Later the attraction may have been a little playmate across the street we were forbidden to cross, the candy in open bins near the pay station in the grocery store or, we hope, the picture books that awaited us at Grandmother's. What draws you irresistibly today? Is it a piece of chicken at midnight, just one more piece of chocolate from that open box, the golf course or a table of bridge, the shops filled with antiques or with those pretty frocks for the warm season ahead, or the book store with all its best sellers? For me, the compelling lodestones are the children's books that cross my desk.

Children, too, find lodestones in books whenever books are easily available and if the literary offerings are varied so that each child can find exactly the right book for

[1]Mary C. Austin et al, *The Torch Lighters: Tomorrow's Teachers of Reading*. Cambridge: Harvard University Press, 1961.



him at precisely the right time. From the age of eight, I found every book that came my way grist for my reading mill—*Black Beauty, Pilgrim's Progress,* the Bible, the almanac, the *Elsie* books, detective stories, *Grimm's Fairy Tales,* love stories, the marvelous offerings of the *Youth's Companion* and *St. Nicholas* which my father had saved from his boyhood years. I recall the one particular lodestone I sought in the first books I read—much conversation. I was prone to skip the solidly printed paragraphs and pages, to peruse only the conversation which was lively and easy to read. I must admit that even today, when I wish to relax and escape the pressures of a busy life, I look for a book whose pages do not look heavy but are broken up by irregular lines of dialogue.

What are the lodestones that attract children to books? In the studies of reading interests of boys and girls we find some significant clues. Decades ago Terman and Lima found that boys like adventure, vigorous action, and animals while girls like fairy tales, poetry, sentimental treatment, and—like boys—animal stories. Later investigations have in part confirmed these findings, but have revealed some differences. For instance, sex differences do exist but they appear earlier than Terman and Lima found. However, boys and girls have many interests in common, also dislikes. They agree on enjoying lively adventure, but girls resist any violence which may appeal to boys. Children of both sexes like human characters though girls do not want the children in the books to be younger than themselves and boys do not care for books that center around girls. All children like animal stories, but girls have a special liking for books about domestic animals and pets and avoid stories that feature fierce beasts. Both girls and boys like mystery stories or those that are patriotic in theme. They agree on disliking long descriptive passages and didactic treatment.

In some respects, boys and girls are wide apart in their likes and dislikes. The former are attracted to accounts of physical struggle, hero tales, factual accounts of history and science, sports and games, and humor. They do not care for fairy stories, love and romance, sentiment, physical weakness—some of which do appeal to girls. In their turn, the girls seek out stories of home and school life, sentiment, love and romance, and the supernatural. They dislike any violence, goriness, or bitter conflict in the books they are reading.

These later studies also show that age makes a difference. Reports by Taylor and Schneider (in 1955), Rudman (in 1958), and Norvell (in 1958), by Northwestern University and the Office of Education, and by investigators in the San Francisco study of the mass media indicate shifts in interest as children grow older. For instance, fables and fairy stories tend to be best liked in grades three to five; myths, legends, hero and folk tales to appeal in grades five to seven. Children in grades four to eight turn toward mystery, sports and recreation and show decreased liking for stories that feature cowboys and fairies. Lively action, adventure and animal stories have a constant appeal.

Some of these investigations also revealed differences in amount of reading done by younger and older children. The San Francisco study showed an increase from grades one to six, with the girls generally reading more than boys do. After children have learned to read independently, they tend to read from one half to an entire book per week. The report made by Northwestern University and the Office of Education showed that children read voluntarily in grades three through nine, the average time spent being about 1.1 of an hour daily and the kind of books being largely fiction or stories of famous people. It was shown that most children spend more time watching television than reading. Bright children who are good readers, however, devote less time to watching television and spend more time reading than do the majority of the boys and girls.

Valuable as these studies of reading interests are, they seem rather cold-blooded and abstruse to me. Whenever children turn to books, they do so because they get satisfactions from reading. Books may yield information that satisfies curiosity, may hold up a mirror to life that helps the child to understand himself and those around him, and may help him travel to novel faraway lands or return to times long gone so that he gains an understand-

144.

ing of the world in which he lives; or reading may just be real fun. Josette Frank says that books are possibly the child's richest source of self-discovery, that literature has the power to deepen and broaden understanding as it enlarges his vision of himself and his world. Books yield insight and appreciation; but, she feels, much as we know of children's likes and dislikes in reading, any one child's preferences are still unpredictable. We must use our hopes and hunches if we try to guide the child to just the right book to bring him the utmost in satisfactions and in answers to problems peculiar to him. I like Frank's remark that the therapy of the Beim's *The Smallest Boy in the Class* is less for the too-small child in a group than for the other children who need to understand the problem such a child has. Similarly Estes' *One Hundred Dresses* should give insight to the privileged, well dressed children in a class where there are peers less fortunate.

Books, then, bring to the child the basic problems and values of life as he meets storybook characters who have problems, ways of life and standards like our own or different enough that he can gain insights that real life has not yet afforded. Sperry's *Call It Courage* may show him how to face and conquer his own fears; Krumgold's *And Now Miguel* may help him understand that the adolescent growing into the adult world can solve the problems intrinsic in such a situation. Maib says that reading aids the child by expanding, correcting, and directing the inner picture which the child has of himself and of his surroundings. Or he may seek out books for the sheer enjoyment of reading as he relaxes, finds vicarious adventure, or escapes from the real world and gives himself completely over to an imaginary world. Just as Napoleon geared his life to that of his hero Caesar, a child may find in the real or fictitious heroes of his book world ideals of bravery, persistence, unselfishness, and service that will direct his own subsequent life.

In the words of Anne Thaxter Eaton, "All the world, real or unreal, lies before the child who reads"; and, I would like to say, who listens. It is so important that we read to children much and often. Some books like *Wind in the Willows, Rabbit Hill,* or *Alice in Wonderland* should be introduced to children before their reading proficiency permits independent reading of these fine stories, So many of the better books will never come to their attention if the teacher does not read choice bits that reveal the appeal that yet-unnoticed books have for child readers. By her oral reading to children, the teacher or parent is ever extending the children's reach, expanding their interests, giving ever greater opportunities to gain insight and understanding. It has been recommended, for instance, that all the Newbery Award books should be read to children.

When we read to them, let us choose wisely. Let us look higher than the *Bobbsey Twins* books and their ilk. We should turn to the recommendations of authorities like those who write the reviews in *Elementary English*. The characters should seem real, should be dynamic, should stir both heart and mind of the listening child as does the story of *Charlotte's Web* which has left many a boy or girl with wet eyes. As in *Johnny Tremaine* or *Rifles for Watie,* the theme should be strong and the plot absorbing. The story should fit the maturity of the listeners—neither too young nor too old for the interests of the children; and, at the same time, the teacher should so select the books from which she reads orally that she is helping to upgrade her pupils' literary tastes. I find that children who have been exposed to really good books tend to develop tastes that will permanently lead them to select high-quality books, just as you or I after having found in an exclusive store a beautifully tailored but simple suit which we find too expensive for our budget cannot be satisfied by the more garish, cheaper suits we find in the more ordinary stores.

The lodestones in children's books are the stories themselves—their swift action, the sustained suspense, their memorable characters, the intriguing facts that satisfy curiosity, any rib-tickling humor. *The story is the thing.* Yet the pull of a book can be enhanced by appropriate and appealing pictures, especially in books for younger children. The d'Aulaires express the standards that underlie suitable illustrations—they should closely parallel the

unfolding plot but should add to it. When the d'Aulaires write and illustrate, they edit their productions by eliminating from the text what they find better shown in pictures and omit from the illustrations what is better told in words. Thus their books are closely knit units. Their pictures also demonstrate admirable and appealing features—gay colors, simple and clear-cut delineation, authentic garb and settings, revealing facial expressions and posture, strongly suggested action. While color is generally a strong lodestone in making illustrations attract children, some of their favorites are in black and white, as for instance, Lynd Ward's *The Biggest Bear,* which has spectacularly impressive pictures.

We want our children to be drawn to the best books, to seek out only the truly good ones; and we must make such books available in abundance and variety. In other words, we seek excellence. Here I should like to quote from a recent address by Frances Clarke Sayers:

> Excellence in books is a matter of individuality: the unique sensibility of the writer. It is a matter of emotion, of the depth of feeling and the degree to which he is involved in his subject or his theme. Excellence is a matter of concept: originality in idea or in the manner of presentation. It is a matter of zest, spirit and exuberance. It is a matter of daring and courage and honesty: daring to speak out on some of the tragic aspects of life—death, fear and the meeting of defeat. These are themes that are forbidden in this paradox-ridden culture of ours, which functions in the shadow of the atom bomb, on the one hand, and determines, on the other, that children shall have peace of mind at any cost and be taught that the chief end of man is to be well-adjusted and secure, with the implication that success and the swimming pool shall be added unto these. Excellence is a matter of style in writing: the author's individual way of expression,—varieties of color and pace in language. Excellence is above all life-enhancement rather than life adjustment. It is the sounding echo of an ancient covenant between Man and the unknown. Young children are capable of apprehending it and of assuming a responsibility toward life beyond themselves.

In *Books, Children and Men,* Paul Hazard says: "I like books that remain faithful to the very essence of art. Namely, those that offer to children an intuitive and direct way of knowledge, a simple beauty capable of being perceived immediately, arousing in their souls a vibration which will endure all their lives." Well-written books act as their own lodestones. They are irresistible to children because of beauty and strength of theme, vigor of plot and action, illuminating concepts, revelation of character, and/or offerings of a means of escape, relaxation, and fun because of humor or exciting adventure. Let's bring good books and children together.

146.

50.

Vol. 7, 62

136.

## 15. A Comparison of the Effectiveness of Workbook and Non-workbook Types of Follow-up Materials

ROBERT L. DOCTER

Widely divergent viewpoints exist concerning the value of reading workbooks in the instructional process of the elementary classroom. To determine what objective evidence could be obtained regarding the advantages or disadvantages of workbooks, a study was undertaken following a grant from the Los Angeles Board of Education. This research attempted to measure the relative effectiveness of workbook and non-workbook methods of follow-up activity through an analysis of empirical evidence gathered in a controlled learning experiment; opinions of professional personnel; and an extensive evaluation of the materials.

In using the term *workbook,* reference is made to the commercially published, consumable workbook designed to accompany a specific basal reader. In using the term *non-workbook* materials, reference is made to the materials designed and prepared by individual teachers for individual reading groups as well as to various mimeographed publications prepared for teachers by separate elementary school districts within the school system. The non-workbook method was considered to be the *status quo* of reading in Los Angeles.

The term *follow-up*, when used to describe a portion of a lesson or type of materials, was defined as a reading activity designed to reinforce previous teaching and to afford practice for a pupil on a specific reading skill.

The stated problem of this research was readily divisible into three separate sections. For purposes of easy reference, these sections might be labeled: (1) the learning experiment; (2) the opinion study; and (3) the evaluation of the materials.

### The Learning Experiment

In order to determine the rela ive gain in reading skill by workbook and non-workbook classes, eighteen schools were randomly selected from the total population of Los Angeles elementary schools. Each school furnished two classes of comparable grade level and ability, giving us 36 classrooms representing all six elementary grades. One of the classes in each school became an experimental group. This class used workbook materials throughout the entire school year. The other class became a control group. This class used non-workbook materials throughout the year.

147.

With experimental and control groups assigned to the same school, it was possible to assume that each classroom had similar socio-economic background, similar school organization, similar access to supervision and other facilities. The two teachers assigned to these classes were selected by the administrator of the school on the basis of similar classroom management techniques, similar motivation for teaching, and comparable skill and experience. The selection of the specific teacher to be assigned the experimental method was left to chance.

Instruction proceeded in both the experimental and control group classrooms in accordance with established developmental method practices in the Los Angeles area. The only exception involved the use of the workbook in the experimental situations. Approximately 50 workbook titles to accompany basal readers from five different publishing companies were purchased. Each teacher divided his class into three separate reading groups, based on the reading achievement scores from standardized tests, as well as subjective appraisal. The teacher then assigned a basal reader to each group which corresponded with the specific instructional reading level involved. Growth in reading during the one-year experimental period was measured through use of the Stanford Reading Achievement Tests. Form "J" was administered in the fall as the pre-test instrument, and Form "K" was administered in the spring as the criterion measure. The mental age of each pupil, derived from group intelligence measures, was also recorded as an additional antecedent variable.

Each classroom group was left intact and analysis of covariance was used to test the hypothesis that both experimental and control groups were random samples of the same population. This device is similar to that suggested by Walker and Lev (1953) and Gaffrey (1956). Each grade level was treated as a separate experiment. A "gain" approach, also suggested by Gaffrey (1959), was utilized in the statistical design. In this instance, where one of the antecedent variables is a pre-test measure and the criterion variable is a post-test measure, the difference between the two measures becomes a record of the *gain*. This gain then becomes a new criterion variable, and the mental age of each pupil became the only antecedent variable. Thus the statistical computation was somewhat simplified.

Mean gains during the school year of the experimental and control groups in raw score comprehension and vocabulary points were computed. Gains in the first grade favored the control (non-workbook) group. With use of the mental age as the antecedent variable, the significance of this difference was tested through analysis of covariance. An analysis of the first grade F ratios showed that the difference in gains between the experimental and control groups was highly significant beyond the .01 level of confidence in both comprehension and vocabulary scores.

In the second, third, and fourth grade, however, it was noted that the differences in gain favored the experimental (workbook) group. The second grade F ratios showed that the comprehension gain of the workbook group was significantly greater than that of the non-workbook group beyond the .05 level, and that the vocabulary difference favored the workbook group beyond the .01 level. An identical situation was noted with regard to the third-grade scores. There were significant differences in comprehension gains and highly significant differences in vocabulary gains, both favoring the experimental group. The fourth grade experimental group also registered greater gains during the year than did the control group. According to the findings, this difference was significant in regard to comprehension but not significant in terms of vocabulary. No significant differences were apparent between workbook and non-workbook groups at the fifth or sixth grade levels.

## Opinions of Professional Personnel

A broader phase of the study involved the assessment of opinion concerning the effectiveness of the workbook materials by teachers and administrators participating in the study. Over 1200 teachers from 80 randomly selected schools participated in this phase of the study. A questionnaire was distributed to the participants immediately following the semester in which

workbooks were used as an integral part of their classroom reading program.

Results demonstrated that both teachers and administrators favored a workbook type follow-up material over a non-workbook type. In looking at sub-sections of the questionnaire an analysis of the time factor in preparing for a reading lesson showed that less teacher time was required in preparing a lesson utilizing workbook type follow-up materials than the non-workbook type. Teachers felt that workbooks did not impinge on their class instruction time in regard to explaining the mechanics of the assignment or in slowing down the tempo of the lesson. They also felt that the workbook type follow-up material was more easily checked.

On the whole, teachers believed that the workbooks were challenging to children reading above grade level, but slightly frustrating to children who were below average achievers.

An analysis of the returns of the teacher questionnaire classified by grade level showed that first grade teachers held opinions significantly different from teachers of the other grades on certain questions. This difference existed in items involving the ease or difficulty with which pupils performed the lessons; the lack of challenge of the workbook to first grade pupils reading above grade level; the frustration presented to first grade pupils reading below grade level; the difficulty which first grade children evidenced in using the workbook independently; and the greater number of complementary lessons constructed by first grade teachers in order to supplement the workbook.

Without doubt, however, the majority of administrators and teachers at all grades favored the use of workbook type follow-up materials over the non-workbook type.

## Evaluation of the Materials

A city-wide committee of approximately sixty Los Angeles teachers and administrators under the general chairmanship of the Coordinator of Elementary Curriculum, Mrs. LaVon H. Whitehouse, designed criteria for the purpose of evaluating the workbook and non-workbook materials.

Evaluation score cards showing the weightings assigned each criterion at each grade level were distributed to teachers who had used the workbook materials during the experimental year.

In each instance the workbooks received universally high ratings from the teachers who had used them in class instruction. The highest ratings were assigned the second, third, and fourth grade titles.

Randomly selected teachers who were not participating in the workbook study were asked to collect all of the non-workbook materials which they prepared for one reading group during one semester of the experiment. This material, completely free from any identifying mark, was then evaluated by special grade-level sub-committees of the city-wide committee.

The first and second grade non-workbook material received a mean rating of 454 out of a possible 1000 points. The same jury evaluated the first and second grade workbook materials and assigned them a mean rating of 870 points. The third and fourth grade non-workbook materials received a mean rating of 647 points, and the fifth and sixth grade workbooks were given a mean rating of 928 points.

## Conclusions

A pattern of evidence from the analysis of the comparative gains of the experimental and control groups, from the opinions of teachers, and from the evaluation of the two types of materials suggests that workbook usage has a peak of efficiency in grades two, three and four. It can also be concluded that non-workbook materials proved to be superior for the purpose of initiating the reading program during the first grade. Neither the workbook nor the non-workbook materials demonstrated a clear superiority at grades five and six. The majority of teachers of all grades favored the use of reading workbooks in the basal reading programs under their direction, but this majority was smaller at the first grade than at other grades. Reading workbooks received consistently high ratings when evaluated by specific criteria. The readiness and pre-primer workbooks of the first grade, however, were rated somewhat lower than those of other grades.

149.

51.



Vol. 10, 1965

286.

# 2. Use of Cloze Tests as a Measure of Readability in the Primary Grades

RUTH GALLANT
Marquette University

THIS STUDY was designed to explore two related problems: the validity and reliability of cloze tests as a measure of reading comprehension for pupils in the first three grades; and the effect of increased sentence length on the reading difficulty of passages designed for use with beginning readers. The validity and reliability of cloze tests had to be established first since the researcher was interested in comparing reading difficulty through direct reader reaction, an approach which cloze procedure utilizes.

Cloze tests, used to measure the degree of comprehension by the reader or the readability of the materials, are constructed through the deletion of every fifth consecutive word in selected passages. The deleted words are replaced by blank lines of uniform length which the reader fills in.

The decision to use cloze tests was based upon the assumption that cloze tests are affected not only by those factors within the reading material itself but also by specific reader characteristics which affect the difficulty of the materials for that particular reader. This assumption is supported by existing studies of language behavior, and by previous research in cloze procedure.

## Close Tests: Validity and Reliability

To determine the validity of cloze tests as a reading comprehension measure for primary pupils, a comparison was made between the ranking of pupils within each grade on the paragraph reading section of a standardized reading achievement test and the ranking of these pupils on the same section of a comparable form, rewritten as a cloze test. Metropolitan Achievement Test, Primary Battery I and II, Forms B and C, were used with grades one and two, and Metropolitan Achievement Test, Elementary Reading Test For Grades Three and Four, Forms B and C, with grade three.[1]

The paragraph reading section consisted of selections of gradually increasing length and difficulty, the comprehension of which was measured by sets of questions. Re-written as a cloze test, each paragraph was treated as a discrete unit in which every fifth word was deleted and the questions omitted.

Doubt as to the ability of first grade pupils to handle the writing of cloze responses led to the preparation of a modified cloze test in which a choice of three responses appeared for every deleted word. A pilot study was conducted and it was decided to use the modified cloze form with grade one.

The standardized reading tests and the cloze tests were given to 273 pupils in two schools in Bedford, Indiana. The standardized test was scored in accordance with the published key. The modified cloze test used in grade one was scored on the basis of selection by the pupil of the exact word deleted. For grades two and three, the cloze tests were scored twice. Credit was given on the first scoring for replacement of the exact word deleted. On the second scoring, credit was given for exact replacements and for those responses which (1) approximated to a reasonable extent the meaning of the word deleted and (2) agreed in person and tense with the word deleted. References in this paper to substitute scores apply to the totals secured through the second scoring method.

The reliability of the cloze tests was established by calculation of split-half reliability coefficients for odd-even items, corrected by application of the Spearman-Brown formula. The reliability coefficients ranged from .90 to .97 and were significant at the .01 level of confidence.

Pearson product-moment correlation coefficients were calculated between the standardized reading test scores and the cloze test scores for each grade in total

[1]Copyright 1959 by Harcourt, Brace and World, Inc., adapted and reproduced with their permission.

150.

and for each grade subdivided by sex. The correlations for all three grades ranged from .65 to .81 and were significant at the .01 level of confidence. No significant differences were found in these correlations for the boys and girls within each grade level. The findings indicated that the cloze tests were both valid and reliable measures of reading comprehension for these primary grade pupils.

### Effect of Increased Sentence Length

The exploration of the effect of increases in sentence length upon the reading difficulty of primary reading materials involved the construction of two sets of reading materials.

Each set of five passages contained a simplified adaptation of a folk tale. In the first set, hereafter referred to as the basal passages, factors controlled were the number of words per passage, number of words outside of the Dale List of 769 Easy Words, and sentence length. The vocabulary for each passage was from a specified book level in a basal reader series, ranging from primer through grade three. Application of the Spache readability formula showed the readability levels of the five passages to be 1.8, 1.9, 2.5, 2.9, and 3.3.

The second set of passages, hereafter referred to as the revised passages, contained the same controls with the exception of sentence length. Changes in sentence length raised the Spache readability levels to 2.1, 2.4, 3.0, 3.7, and 4.3. The differences between comparable basal and revised passages ranged from three months at the primer level to twelve months at the book three level.

The two sets of passages were rewritten as cloze tests. Again, a modified form of cloze procedure was used in grade one. The cloze tests were then given to the 273 primary pupils previously tested. The critical ratio of the difference between the means on the basal and revised passages was calculated for each of the grades, and for boys and girls within each grade.

These differences, for grade one and grade two and the subgroups of boys and girls within each of these two grades, were significant at the .01 level. In effect, the revised passages with the longer sentences were significantly more difficult than the basal passages.

For the boys in grade three, no significant differences were found for either the exact or the substitute scores; for the girls, no significant differences were found for the substitute scores. The expected increase in difficulty due to the use of the longer sentences had disappeared for these particular sections of the population.

### Summary

These findings indicated that cloze prodecure was a valid and reliable measure of reading comprehension for beginning readers. The experimentation with sentence length suggested that cloze tests offer a means of isolating variables which affect readability, and that this could be done in terms of specific groups within the school population. The need for additional clarification of the effect of controls presently imposed upon many primary reading materials is evident.

52.

ROMA GANS

COLUMBIA UNIVERSITY

# 2. The Effect of Current Emphases on Beginning Reading Materials and Methods on the Recognition of Individual Differences

THE TOPIC, "The Effect of Current Emphases on Beginning Materials and Methods on the Recognition of Individual Differences" is an exceedingly important one. For well over one-half century the differences among children (and all humans) have been studied and defined. Materials and methods have been created to assist teachers in meeting the variations of children in their classes. Teachers have frequently been evaluated in terms of their ability to fit their teaching to individual differences.

To report on the *effect* of present-day emphases specifically in the teaching of beginning reading poses a problem to one who accepts the position that to study effects of given experiences on young children especially requires a three-to-five year period of time. Also, to be valid, significant relevant psychological factors, especially those pertaining to the level of children's thinking, must be included. These two conditions are difficult for school leaders and reading specialists to meet because budgets are too restricted and personnel resources too limited.

The assumption, accepted or implied, that learning to read requires mechanical skills separate from the total thinking and intellectual development is a theory which I do not accept. Neither am I willing to accept that teaching reading *via* controlled responses can be properly evaluated solely through the correctness of the responses (4). Studies such as the one now being conducted by Almy (*1*), one of the first longitudinal studies of certain elements of young children's thinking, need to be carried out specifically related to the field of reading.

The data coming off the press daily which cite the pros and cons of experiments with new materials and approaches for teaching reading to beginners after only one or two years of experimenting are not adequate.

Studies testing the Piaget Theory of the three levels of thinking of children between five and six, and the research on the relation of language and intellectual development *via* experiences reported by Hunt (*4*) make provocative reading on this point.

Although major questions of effect remain unanswered, there are some observable trends. The first is the tremendous stir in kindergarten, first, and second grade over the teaching of reading. There is widespread interest on the part of teachers and a tendency to inquire and to explore. This in turn has created more stimulation in classrooms and has had a similar stimulating effect on children. The stagnant kindergarten programs, short on vital intellectual life, long on routine, have been jarred. Some, regrettably, have traded one stultifying emphasis for a too narrow reading readiness program equally stultifying for agile learners. In neither is a child encouraged to develop his growth as a thinking, intuitive, creative child.

More than any other emphasis that seems to affect classroom practices is the publicity given specific approaches. The advertisements, directly or implicitly, create the belief that one set of materials and specified methods will fit a given classroom group. Many teachers and their leaders accept this "hard sell." The result is multiple and unfortunate. Teachers become less inclined to try to meet the individual differences, assuming all materials and methods will be right for each child, some now, some at a later time. Furthermore, an uncritical attitude seems to accompany this belief. Brand names of materials now all too often get "rave reviews" hardly becoming to those in a learned profession.

The lessening of creative endeavor on the part of the teacher which results from the increased reliance on the specific how-to-do instructions results in another limiting effect. Teachers use teaching time for the

The emphasis on teaching even the pre-schoolers to read has stimulated parents, some of whom eagerly report on their success in teaching an infant to read. Barring the extremes, the present interest in intellectualizing kindergarten programs may result in increasing the number of psychologically sound programs for five-year-olds, programs in which the nimble will extend their growth in beginning reading while not being deprived of the experiential base so essential to their growth in language and thinking. However, one point needs to be emphasized here, in the words of Almy (1:130): "no specific instruction will hasten the transition from one level of thinking to the next." This casts doubt on the panacea approach, namely, "Given this material and this method, all children of an age or grade will learn to read."

commercially prepared work and give less time to story hours and discussions. Young children, therefore, are spending more time on the controlled answer type of response, both written and oral. According to Hebb's (*3*) theory on brain function, children with limited experience in thinking out their answers are not given an opportunity to develop important stages in thinking. Experimenters working with 5's, 6's and 7's note the tendency some young children have to fish for the *right* or *expected* answer, to focus on meeting the adult's direction rather than on meanings. Methods that produce this behavior are a form of brainwashing. Furthermore, such intellectual impoverishment or impairment can be lasting. This point is of strategic importance. All who are interested in formulating and/or using materials and methods for beginning reading should feel obligated to know the effects they produce on the developing creative power of children.

One more question concerning the effect of current materials and methods on recognition of individual differences concerns us. In many classrooms across the country, young children are not only becoming skillful, independent readers, but they are often propelling themselves in selecting and reading library books independently or with some teacher help. In these classrooms such reading is a scheduled part of the program. In visiting classrooms recently I have found an increase in time required for newly selected teaching materials, over what was formerly spent on basic materials. Therefore, time for personally selected reading was limited or completely deleted. Children from culturally minimal areas are particularly deprived by this change.

Let's face it, in many classrooms the amount of time spent on teaching new or former materials allowed little or no time to pursue personal reading. In the Hofstra University (*4*) i.t.a. project, the average time per day in first grade with i.t.a. was 153 minutes in fall, 143 minutes in spring and with T.O. 167 minutes in fall and 154 in spring. In either case, over two hours of each day were required.

Considerations such as these reveal the importance I attach to the research in young children's progress in learning to read from a broader approach, one demanding at least the knowledge of specialists from the field of child development combined with specialists from the field of reading.

Some new approaches have caused an upgrading of children's interest and progress in learning to read. The teacher's enthusiasm already mentioned doubtless has been partly responsible. This is good. Would that all children were taught by enthusiastic teachers! There are other gains.

Some of the newer systems stimulate wider "sensory operations." Children manipulate, match, write, as well as look and listen. This is in line with points made at the important conference at Harvard University (*7*) on sensory deprivation.

Along with these gains has come an increased awareness of which children are responding favorably, which are not. The differences noticed may ultimately generate wider exploration of individual differences and methods providing for them. For example, some experimental teachers now observe marked differences in the sensory approach to new experiences. From such observations a variety of materials and methods, some recently produced, some to be created, may be called upon.

A contribution of great promise has been made by the selection of topics and vocabularies more appealing to young children than many of the former materials. Words closely related to children's speaking vocabularies are used. This recent development will benefit all children, but particularly those who had difficulty in latching on to words scant in personal reference and undramatic in sensory appeal, a point reinforced by studies made by H. B. Anderson (*2*) and C. E. Osgood (*6*).

Last, the present tremendous excitement in the field of beginning reading can create a decided up-swing in young children's reading growth as well as in teachers' competence. However, to realize such promise, a far greater disciplined approach to research, advertisement and classroom experimentation is necessary, not only to assure us of progress but also to prevent us from scuttling the gains already made in recognizing individual differences and providing for children's creative uniqueness.

## REFERENCES


1. Almy, Millier, Chittenden, Edward, and Miller, Paula. *Young Children's Thinking*. Teachers College Press: Columbia University, 1966.
2. Anderson, Howard B. *Children's Response to Own and Basic Vocabularies*. Pennsylvania State University, Doctoral Thesis, 1962.
3. Hebb, D. O. *The Organization of Behavior*. New York: Wiley, 1949.
4. Hunt, J. McV. *Intelligence and Experience*. New York: The Ronald Press, 1961, Chapter 4.
5. I.T.A. Bulletin, Volume 3, No. 2, Winter, 1966. New York: Initial Teaching Alphabet Publications, Inc.
6. Osgood, C. E. *Method and Theory in Experimental Psychology*. New York: Oxford Press, 1953.
7. Solomon, Philip (Ed.). *Sensory Deprivation*. A Spmyosium Held at Harvard Medical School. Harvard University Press, 1961, chapter 8.

53.



that are the goals of all teaching. But instead let us concentrate on the second implication — that reading literature requires particular skills and techniques that must be learned and that pose special problems of instruction.

Reading as a process by which we get meaning from written expression always involves certain basic skills: word recognition and definition; perception of structure and organizaton, as in sentence and paragraph; alertness to meaning clues, as punctuation, transitions, emphases. Upon these skills comprehension of meaning in factitive and informative writing primarily depends. Most of our teaching is concerned with promoting steady growth in their use toward accurate and properly speedy comprehension. But when we turn to literature, the concept of "meaning" must be extended to include import beyond the literal statement of fact—emotional, aesthetic, imaginative, philosophical import — the communication of which requires techniques in addition to those necessary for all written expression. To learn to read literature is to learn to perceive, and use, and respond to these further modes of expression upon which the writer of literature must rely.

This difference between factitive and literary meaning presents the first problem in teaching. We must help establish a different "set," to borrow a term used by psychologists for the preparatory or facilitating condition that precedes and accompanies actual behavior. Since one "set" toward a particular stimulus or process can actively inhibit another, a first essential in reading literature is to learn to shift from the set to read rapidly for accurate comprehension of literal meaning to that necessary in order to feel, to savor, to imagine, to experience, to enjoy.

A young neighbor of mine shut in for a few days with a cold told me he had read ten books in that time. "That's a lot, isn't it?" he asked. "I can read fast." "Good for you," I said. "What is this one about?" "Oh, some boys got lost in the woods, but they found their way out all right. They used signs they had learned in Scouting." Speed and comprehension seemed satisfactory, we might say; but when I probed beyond the facts for a shared experience, I found that reading for such meaning had

Vol.7, 62

## 8. Teaching the Reading of Literature in the Elementary School

HELENE W. HARTLEY

That your program committee should choose "Teaching the Reading of Literature in the Elementary School" for special consideration has a twofold implication: they must believe that learning to read literature is an important concern of elementary education, and that it requires some special skills beyond those essential for all reading.

It is a temptation to discuss the first of these implications—that teaching children to read literature is important, both for the values that result as ends in themselves, and because that learning can serve as a means to the end of facilitating the teaching of reading in general, providing stimulus and motivation, fostering vocabulary growth, teaching adaptation of speed to purpose, and helping with other skills

154.

not taken place. "I've never been lost in the woods," I said. "I wonder how it would feel—night coming down, shadows getting thicker, walking in circles maybe!" Turning to the well written book, I read aloud that moment when realization that they were lost first came to the boys. My young friend's eyes widened in imagination; he began looking around among those trees; night sounds came to him from words the writer had carefully chosen to convey them. As I laid the book down, he quietly picked it up and started reading again. I tip-toed from the room, leaving him, I hoped, "set" now to read for imagined experience, for sights and sounds, for emotional response of fright and relief—set, in other words, to read the story as literature.

In the classroom there are many ways to help children take this first step. A bit of ritual can help—putting work away, taking comfortable positions, gathering in circles. Then, too, moments can be seized that create without contrivance a readiness to share a piece of literature that captures and enhances it. A wind blows outside, rattling windows, sending leaves scurrying by. "Listen!" you say. "Hear the wind!" Then quietly, "I saw you toss the kites on high, And blow the birds about the sky ..... Oh wind, a-blowing all day long, Oh wind that sings so loud a song." In one school of my acquaintance each teacher keeps on her desk a typed anthology of her own selection of literature, anticipating those moments throughout the year when mood, or incident, or weather will create readiness to read for literary experience. A library corner for relaxation and library periods rightly conducted can help establish the necessary set. But most important is the teacher's voice and manner and genuine enjoyment to strike the key, to set the tone, to arouse pleasant anticipation for a special kind of reading.

Besides adjustment to the nature and purpose of reading for literary meaning, children must be led to perceive and respond to the unique ways by which such meanings are conveyed. This perception must come in the elementary school less from direct teaching of techniques than from abundant, satisfying experience of response to them, and gradually made a conscious means of reading and enjoyment under the guidance of a skillful teacher.

Of all these modes of expression none is more important than tempo, movement, rhythm. Fortunately the youngest child can understand this as language if he hears and participates in good oral reading and if response is not inhibited. Skipping to the gay measures of "Here we go round the mulberry bush—"; swaying with the long, slow movement of Stevenson's marvelous use of syncopation in "The Swing"; listening with wonder, imagination, and a bit of awe to Blake's "Tiger! Tiger! burning bright, In the forests of the night—"; settling back happily with the magic unfolding of "Once upon a time —"; these are beginnings for little children. From such experiences they can grow into an adult reader's response to all the subtleties and variations of tempo by which meaning is made clear as truly as by words. Before the end of the elementary school young readers should understand with Mark Van Doren that: "Some books are fast and some are slow, but no book can be understood if it is taken at the wrong speed."

That words have meanings beyond their literal definition must also be learned. Time must be taken in the reading program for children to enjoy words that "sound right," that call up association and imagery, that elicit mood and set the tone. Creative work of their own will help, such as seeking the word that best says how a jet plane sounds when it takes off; the different ways in which the word "blue" can look; the many words for feeling "glad." Here again reading aloud is essential. The sound of Kipling's "great, grey-green, greasy Limpopo River, all set about with fever-trees" is description beyond the words. "The Raggle, Taggle Gypsies, O" carry rich connotation of their gay disreputability. And how different is a tale of "wee folk" from one that might speak of them as undersized or dwarfed.

Since children themselves are given to figurative expression, they are quick to understand what a writer is doing when he personifies, compares, names one thing for another, resorts to hyperbole. They understand, for example, when Kenneth Grahame says that Mole sat by the river that "chattered on to him, a babbling procession of the best stories in the world, sent from the heart of the earth to be told at last to the insatiable sea."

Besides the modes of expression essential in all literature, each literary type—poetry, drama, story—calls for its own reading skill. For each a planned sequence of learning is needed. For example, the difficult art of reading drama should begin with spontaneous play-acting of stories in kindergarten and first grades. Puppetry, and writing original plays for performance, will follow. Watching and producing well written plays for children carry experience along, until they come to understand that setting, gesture and pantomime, stance, tone of voice are as important a part of a play as the words that are spoken, and that these must be reproduced in the mind as they read. If the fine art of reading plays is taught them in the elementary school, it may be that as adults they will not be left with television and the movies as their only access to drama.

Similar learning sequences are needed with poetry and story, until the modes of communication peculiar to each become familiar and readily used in reading them. Whether or not such teaching of the fine art of reading literature will open to all an enriching resource for life, at least every individual should be given the opportunity to discover it. Responsibility for the inception and basic development of this kind of reading rests upon the elementary school, for without such early development its values for the majority will never be achieved.

45.

155.

54.

Vol. 8, 63

# 4. Developing Interest and Taste in Literature in the Elementary Grades

46. HELEN HUUS

## Why Children Read

Why will children read? For the same reason they will do anything: because they really want to. But what makes them *want* to read becomes a complex question to answer, for the basic motivation of individuals varies greatly. There are at least five good reasons that lead children to read books.

*Our Culture Expects It*

First of all, in America our prevailing culture, both in and out of school, demands that children learn to read—and then read. In fact, that is why most of them look forward to school, particularly first grade, because now they will at last learn to read.

Children who have pleasant experiences with reading at home will want to read. As they see other people reading, it becomes only natural that they also do. A four-year-old, whose lawyer father was always quoting from his legal journals, surprised his family at a dinner party one evening by asking the guests if they had



seen the new article about trucks in the latest *Saturday Evening Post*. When they admitted they had not, he said that after dinner he would be glad to show it to them. So when the time came, he produced the magazine, turned to a big double-page spread containing an ad with two huge trailer-trucks, and proudly showed the guests the "new article" on trucks. Reading? Yes, to him, at his level. "Reading" picture books is only the beginning, however, but with the fancy fare available today, who wouldn't want to read?

Older children, too, read because it is expected of them, just as mother reads the books required for her Book Club and father keeps up with the *AMA Journal*, the company's house organ, or the "Union News."

So, the first essential in getting children to read, if they do not, is to submerge them in a reading environment where they cannot escape reading. Surround them with good books—and I mean literally—on top of, inside of, underneath. Read yourself, read to them, get parents themselves to read and to children. Then, just try teaching one whole day—perhaps you can last only one period—without reading. You'll see—so will the children!

*To Satisfy Curiosity*

Another reason why children will read is to satisfy their curiosity. Children by nature are curious. If you are skeptical, follow a three-year-old around for a day and tabulate how many times he asks "What's that?" or "Why?" Unfortunately we adults get too busy to appreciate these active little minds and brush off the questions with a hurried half-answer. This leads children to conclude that asking is a bother, and they better find out for themselves. So by the fourth grade, or so, they have learned so well *not* to ask, that to get them started again often poses a problem for teachers. Books will help satisfy their curiosity, though sometimes perhaps to excess, as in the case of the now-classic story of the boy who returned the library book with the comment that this book told him "more about penguins than he cared to know!"

What can children learn from books? Just about anything from archaeology to zebras, about the world they live in, today and long ago, about how things work, and about interesting experiments.

*To Help Solve Problems*

That books can help solve problems is a third reason why children will read, for they, too, find in books ideas that help them in learning how to act and in learning how to work with other people. A book that comes to mind first is *The Hundred Dresses* by Eleanor Estes, with pathetic little lonesome Wanda Petronski, who wore the same faded blue dress to school each day but bragged that there were a hundred in the closet at home. Not until she had moved away and the drawings of her hundred dresses won the art contest did the class feel sorry for the way they had treated her.

Older boys and girls alike thrill to the way in which Johnny Tremain finally faces up to his problem of having a maimed hand and becomes a young man with a purpose and a goal. That the story is laid during the American Revolution and has historical events and characters is also interesting and helps children feel that this all could have happened; but the real import of the book is Johnny's growing up.

Helping children adjust to new circumstances—new mothers, adoption, new homes, chronic illness in the family, and other problems of living—can often be done better through a book that preserves the child's privacy, yet gives him courage and suggests a course of action for him. And it is often through story friends that children gain an image of what they would like to be themselves.

*For Escape*

Children will also read to escape. Quite soon some learn that reading is considered by their parents as a legitimate use of leisure time not to be interrupted for errands and chores, as television is. So they escape work. Others escape into books when it is too rainy to play outdoors, or when they want to prolong the actual turning out of the light at night. Adults escape to evade making decisions, to "kill" time, or to take one's mind away from vexing problems. And often

156.

what serves as escape literature for one is serious reading for another.

Children may use fairy stories and fanciful tales as a means of escaping into a world where the villain is always punished and everyone "lives happily ever after." One of the amusing modern fairy tales is *Many Moons* by that master of the whimsical, James Thurber. The Princess Leonore wants the moon, and the King wants to get it for her so she will be well again. But when the Royal Mathematician is asked to get it all he does is list the things he already has done since 1907. But this does not help, and the King summons the Court Jester, who neatly solves the problems by asking the Princess what she thinks. Children are delighted when this underdog of the court turns out to be so clever.

Adventure and mystery stories are often escape literature for children, as are the series books and comic books. But if they read quality books as well, I would not worry. The teacher's job is to see that there are books enough.

*For Fun*

The most important reason why children *will* read I have left until last. Of course they read for fun! And there are books that provide all sorts of fun, from the hilarity of Dr. Seuss to the gentle glow engendered by Little Bear, Winnie-the-Pooh, Mole in *Wind in the Willows*, or Little Georgie in *Rabbit Hill*.

The lure of books is often their illustrations, and a book like Helen Borten's *Do You See What I See?* helps children understand what lines, shapes, and colors can be and do.

The appeal of sound and rhythm is found both in prose and poetry. Ann Nolan Clark's *In My Mother's House* conveys—through the steadiness of the beat, the repetition, and the simplicity—the stability of the Indian and the security the little girl feels as she describes her Mother's house. The cadence of the prose in James Daugherty's biographies, particularly, I think, in *Abraham Lincoln,* is most fully savored when read aloud.

Enjoyment is composed of many things—appreciation of beauty, the feel of words rolling around one's tongue, the sounds that tumble over one another, the protectiveness of large and able creatures for the small and weak, the buoyant good humor of healthy, happy children, with the added spice of nonsense.

So I maintain that children *will* read, because we expect them to, in order for them to satisfy their own curiosity, to help solve their problems, as an escape, and just for fun. But we must give them good books they can read and a chance to read them!

## How to Develop Taste

According to Webster "taste" is defined this way:

> The power of discerning and appreciating fitness, beauty, order, congruity, proportion, symmetry, or whatever constitutes excellence, esp. in the fine arts and belles lettres; critical judgment, discernment, or appreciation.[1]

Elsewhere I have recently reported the research studies that relate to the development of taste, and so I shall not repeat them here.[2] But what I shall do is to suggest ways (based upon the research findings) by which you can help children progress to higher levels as they continue reading.

To begin with, children have what might be called an "indigenous taste." When given a chance to choose, they usually prefer that which is good. A fourth-grade teacher found this out when she collected four versions of *Pinocchio* and put them on the reading table: the comic book, the Walt Disney version, one of the "rewrites," and a standard translation containing the original illustrations by Attilio Mussino. Later, when she asked which one she should read to them, the children immediately wanted the "regular" edition—the version that has made it the classic it has become. They recognized the quality of the detailed descriptions and the development of plot that made the story good.

Although children do have inherent good taste, there is still room for improvement. They must learn to recognize *why*

[1] *Webster's New International Dictionary of the English Language.* Second Edition. Unabridged. Springfield, Mass.: G. & C. Merriam Co. Publishers, 1957, p. 2585.

[2] Helen Huus, "Developing Taste in Literature in the Elementary Grades," *Elementary English,* XXXIX (December, 1962), pp. 781-789; XXXX (January, 1963), pp. 56-67.

one book is superior to another: what is appropriate and congruent, what has order and beauty, proportion and symmetry as they look at and c[illegible] are books. But before they can do this, they need first to understand what they read, and here is where the basic reading skills loom so important. Their lack can hamper a child from reading a book he really *needs*. But once he reads it, he then must become involved in the book—really live it with the characters the way many third-graders do as they silently weep when Charlotte, the spider heroine of *Charlotte's Web,* gasps her last breath, or the way older children rocket off into space with Robert Heinlein. Once the reader becomes involved, he is aware of the quality of writing—vivid images, believable characters, a fast-moving plot or at least one that has things happen, a satisfactory ending, and throughout, a basic ethic that recognizes enduring values and moral right. These are little Puritans, these children!

### *Surround Them with Books*

The easiest way to improve taste is just to put enough good books where children can find them. And if you are clever and know your children well, you will "plant" those books on their pet interests right where they can find them—the Bronson book on *Turtles* for the budding zoologist; a biography of Byrd or *Mr. Popper's Penguins* for that Antarctic fan; *Children of Odin* for that one who loves adventure stories, and so on. By making such quality books available and by judicious recommendations, you can do much to keep them reading.

### *Be Enthusiastic Yourself*

When teachers get excited over books, it rubs off on the children—even on college students. I regularly find that my students in children's literature read those books I promote, and one term there was a student who waxed eloquent on "ants." Never before nor since have so many students read the "ant books" as they did that term! Nor is it any wonder that a child who knows you have read a book will want to discuss it with you when he finishes it. And so you get an oral book report without even an assignment.

Then there was the sixth-grade boy who could hardly wait to tell me, for I was a rather regular visitor to the class, all about *Atoms and Molecules,* which he said was the best book he had read recently. Fortunately, I also had read it recently, and we could share our ideas; but as I left the room, the teacher shrugged her shoulders and said, "I don't even know what he's talking about." My first thought does not bear repeating in this company, but it seems a pity if teachers cannot (or worse yet, do not want to) understand what even a good elementary pupil can.

### *Read to Children*

Even the most naive student teacher learns quickly that the best way to get the group quiet is to start "Once upon a time . . ." And this fondness for listening to good stories does not stop with the elementary grades. Adults listen to Lynn Fontaine reading "The White Cliffs of Dover," or to Robert Frost or Carl Sandburg or Dylan Thomas or any number of other poets reading their own poems. So read to children regularly, every day, and more than once a day if you can squeeze it in. What you start reading in class they will get from the public library and be finished long before you are, but will savor each chapter none the less the second time they hear it.

Poetry, of course, is meant to be read aloud, and besides, it has the advantage of being varied enough in length to be easily fit into the many little "in-between" periods of the day.

### *Present Literature Lessons*

Plan your lessons so that children learn what makes books good. Spend time on descriptive phrases, idiomatic language, or figures of speech.

Or plan a series of lessons that will relate the books or poems to music and art. In one sixth grade, the teacher used the record "The Glow Worm" with the poems "Fireflies" by Fawcett and "The Firefly" by Elizabeth Madox Roberts.[3] In another class, the teacher played "The Anvil Chorus" from Verdi's *Il Trovatore*

[3]Fern H. Bowes, Florence Painter, and Vesta Lynn, "Use of Recorded Music to Introduce Literature to Children," *Elementary English Review,* XIX (May, 1942), pp. 178-180.



and used Rose Bonheur's picture, "The Blacksmith," with Longfellow's poem "The Village Blacksmith."[4] (You can almost date this report from these titles!) Annis Duff reports similar experiences in her book *Bequest of Wings,* which is a description of their family's reading together.[5]

### *Build Ladders of Taste*

Finally, but not really the last for there are many other good ideas, gradually introduce the child to better and better books. Get the girls to go from *Nancy Drew* to *Misty of Chincoteague,* to *Caddie Woodlawn,* to *The Three Musketeers,* as Dora V. Smith suggests.[6] Or counteract the comics by substituting the bold and exciting Norse myths—like the edition by Sally Benson—and they are well on their way.

Why do children read? Because it serves their needs at the time until the habit becomes so fixed that they feel cheated if they cannot continue. And how do teachers help? By saturating the environment with books, by showing enthusiasm for books themselves, by reading aloud to children, by presenting lessons that focus on the qualities that make books literary or that relate them to the other arts, and by gradually leading children to books of progressively higher quality. Thus is taste developed, and thus do children come into their inheritance.

[4]Merrill Bishop, "Appreciation Classes in Sixth and Seventh Grades," *Elementary English Review,* IX (June, 1932), pp. 151-152.

[5]Annis Duff, *Bequest of Wings.* New York: Viking, 1944.

[6]Dora V. Smith, cited in Ruth Strang, Constance M. McCullough and Arthur E. Traxler, *Problems in the Improvement of Reading.* New York: McGraw-Hill Book Company, Inc., 1955, pp. 150-152.

158.

55.



## 2. Children's Classics—Yesterday and Today

HELEN HUUS

WHILE it is difficult to draw a dividing line between "then" and "now," I have chosen the year 1930, chiefly because it marked the beginning of the "boom" in children's books. During the decade preceding, children's literature had been enriched by such landmarks as Carl Sandburg's *Rootabaga Stories,* Lofting's *Voyages of Dr. Dolittle,* and Wanda Gag's *Millions of Cats.* It was in this period, also, that *Winnie-the-Pooh,* that stuffed bear of little brain, was first introduced. Forty years later, these are already among the classics for children.

But it is the books that followed 1930 that will be mentioned here, for we have contemporary writing that will hold its own with the past when the total is viewed in perspective. I have chosen ten books for special mention, each from a different category. Choosing these was not easy, but here they are.

### 1. Picture Book

There is Fritz Eichenberg's zany *Ape in a Cape,* with its "dove in love," "goat in a boat," and "vulture with culture," but I did not choose it. Nor Dahlov Ipcar's *Brown Cow Farm,* or Marguerite de Angeli's big *Book of Nursery and Mother Goose Rhymes.* I *did* choose Bruno Munari's *ABC,* because it makes such a splash! The stark, white background of this oversize book forms a perfect contrast for the clear, large, simple pictures that look as if they might have been done by children with linoleum blocks. The big blue butterfly on a double-page spread and the large slice of pink, pink watermelon are striking indeed.

### 2. Fanciful Tale

*Alice in Wonderland* has set a standard, but C. S. Lewis' stories of the imaginary land of Narnia are not to be ignored. Too, there are *The Borrowers* by Mary Norton, peopled by that tiny Clock family, Pod, Homily, and daughter Arrietty, and the imaginative *Children of Green Knowe,* where young Tolly, who comes to spend his holidays with his great-grandmother, is introduced to the children in the family portraits and to their playthings in the attic.

In this category, however, I chose *Mary Poppins,* that British nurse who came in on the east wind and left on the west, who presents such an austere exterior, but who entertains the Banks children, her charges, with such unusual adventures as being suspended in air via laughing gas.

### 3. Realistic Story

*One Morning in Maine,* by Robert McCloskey, is as real as your own family, provided you live by the seaside. Sal literally loses her first tooth, and though she and her father hunt for it along the shore where they are clamming, they never do find it, which is for her one of the sad realities of life. The apparent respect, affection, and interest which adults, both in story and picture, evidence in their relations with the children show in the happy, well-adjusted children who accept and help each other.

### 4. Talking Animals

*The Tale of Peter Rabbit* in 1902 and

159.

*Wind in the Willows* in 1908 showed what talking animal stories could be like, but contemporary tales like *Rabbit Hill* and the *Little Bear* series measure up.

However, it is *Charlotte's Web* that I would choose here, for it poses a real problem: how to keep Wilbur, the pig, from becoming bacon. It describes a plausible relationship between the animals and Fern, the little girl who understands what the animals say, and among the animals themselves—Wilbur, who wants a friend; Charlotte, the spider, who decides to spin *words* in her web in order to save Wilbur's life; and the rat villain, Templeton, who eventually reforms enough to be helpful, but only at a price.

**5. A Girl As the Main Character**

Here one could choose Laura of the *Little House in the Woods,* or migrant Janey of *Blue Willow,* or courageous eight-year-old Sarah Noble, or untamed Kate, who was gentled into a sensitive young lady by her uncle, *The Good Master.*

However, it is the Wisconsin tomboy of the 1860's, *Caddie Woodlawn,* that I would choose, for she embodies the essence of growing up—her childish, thoughtless pranks contrasted with her concern for others, described so vividly in her anxiety for the safety of Indian John. Not only does her real life story show some of the difficulties of pioneer life, but also gives it an exhilarating, exciting flavor that is often forgotten.

**6. A Boy As the Main Character**

I first considered loveable *Little Pear,* the mischievous Chinese boy, and bungling *Homer Price.* Then I looked again at Krumgold's two prize books, . . . *and Now Miguel* and *Onion John,* and at Emily Neville's recent Newbery Award *It's like this, Cat.*

But I discarded all of these in favor first of *Adam of the Road,* that happy-go-lucky minstrel's son, then finally settled on Henry of *Henry Reed, Inc.,* because he exemplifies so well the ingenuity and inventiveness, the sense of responsibility, and the unconcern for the impossible of a contemporary, well-adjusted, middle-class boy.

**7. Other Lands**

I thought first about *Madeline,* and then of Mafatu, the Polynesian boy who became brave in *Call It Courage.* I went on to the children of Shora, who wanted storks in their town and finally obtained *The Wheel on the School,* and to Momo, the little Tibetan girl who successfully found her stolen red-gold lhasa terrier, Pempa, in *Daughter of the Mountains.*

I finally decided on *Big Tiger and Christian,* by Fritz Muhlenweg, that lengthy tale of two boys, aged thirteen and twelve, respectively, who travel the breadth of Sinkiang province, just because they started out to fly a kite by standing in the box car of a troop train during one of the Chinese civil wars.

**8. Animal Story**

While *Misty of Chincoteague, My Friend Flicka,* and other horse stories are exciting and well-written, my choice here is *Lassie Come-Home,* for the love of a dog and the intelligence and perseverence with which he pursued his objective show the real "heart" of a dog so clearly and vividly. While the human characters are secondary, they do make difficult decisions that reflect their underlying moral sense.

**9. Biography and Historical Fiction**

Competing for honors in this category is the trilogy by Gerald Johnson subtitled "A History for Peter": *America is Born, America Grows Up,* and *America Moves Forward.* Another serious contender *George Washington's World,* the horizontal "slice of history" recorded and illustrated by Genevieve Foster.

But these were eliminated in favor of James Daugherty's *Abraham Lincoln,* a biography in cadenced prose, enhanced with sepia illustrations of strength and vigor. The dignity of the subject, the tone of the times, and the character of the man emerge from these pages, and the reader comes away with an increased understanding and awareness of the stature of this tragic figure.

**10. Myth**

In this last category, *Yankee Doodle Cousins,* by Anne Malcolmson, should be considered, for it gives an overview of the myth that is America. But it is Kate Seredy's story of her forebears, as told in *The White Stag,* that I would choose, for she describes, in a style worthy of the subject, the wanderings of the Huns and Magyars for four generations until they reach their promised land of Hungary. She illustrates the myth with superb drawings that express the emotion and reinforce the dignity of the writing.

From this account of just a few of the superior children's books published since 1930, it is not difficult to conclude that there *are* books of today that can stand respectably beside the classics of yesterday; while not all those selected here are yet called "classic," only time will tell their ultimate destinies.



160.

56.

Vol. 9, 64

12.

## 2. The Basal Reader, a Tool for Meeting Individual Differences

TRULA MAUD JETTON

ACCORDING to the dictionary, a tool is any instrument used in doing some work, or it may be a person or thing used as a means to get something done. Just as speech is a tool for the art of spoken communication, reading is a tool for the process of getting thought from the printed page. This tool, used effectively, opens the door of the mind to science, social studies, and our heritage of literature and history. Books are tools of education; now let us consider the basal reader as a tool for meeting individual differences.

If individual differences are to be met effectively, the first consideration should be a brief review of some of the ways children differ. To say that children differ physically, mentally, emotionally and socially may not emphasize the uniqueness of their variations. For example, social differences have a tremendous impact upon a classroom situation. The spoken language of each child reflects something of his cultural as well as his environmental background. Because of experience, the same words may have various meanings to different children. For this reason communication is often hindered.

The teacher is recognized as the key to a successful instructional program, and her effectiveness depends upon her skillful use of tools such as the basal reader. It is her responsibility to know her children and how they learn; to understand the material with which she is working; and to adapt the material to the different needs of the children. The teacher's role becomes one of diagnosis. William Sheldon suggests that the teacher of small children can use the following method:

1. Assess a listening capacity by determining how long and at what level a child can listen.
2. Measure the idea level of children through pictures of their own evironment.
3. Use readiness books for diagnosing children's ability to discriminate auditorily and visually.[1]

The teacher can also use informal reading inventories to help determine levels of reading and rate of comprehension. Manuals and workbooks offer review tests of skills and can be used in diagnosing pupils' needs and achievements. The tests which accompany basal readers provide help in determining the kinds of competences. "The effectiveness of the teacher's work depends a great deal upon good

[1]William Sheldon. "The Teacher's Role in the Diagnosis of Reading Problems." An address given at a reading conference in Alpine, Texas, July, 1963.

161.

diagnosis of needs and accurate assessment of achievements."[2]

The teacher's next problem is one of adapting the material to individual differences. Emmett Betts says that to be successful in this respect the teacher must (1) understand the causes and symptoms of at least the common difficulties in reading, (2) have the necessary perceptions and skills to use systematic observations as a basis for estimating the instructional reading levels of their pupils, and (3) obtain some information on the readability level of the instructional materials. Successful teachers understand that lip movement, finger-pointing, word-by-word oral reading are some of the symptoms of reading difficulty.

With this much insight into the reading difficulties of the children, the teacher's success is not insured, for she must be able to make reading interesting for the children. Some ways to accomplish this goal are (1) beginning where the learner is and (2) guiding him to higher levels of maturity in his interests. She must be able to develop phonics and word-perception skills to the point at which they are used automatically and she must remember that the process called thinking and the product called comprehension are the focal point in reading and in reading instruction.[3]

The skills program in a good basal reading series is methodical, organized, and thorough. It has an order in the sequence of language development: listening, speaking, reading, and writing; and it takes into consideration the systematic development of interests, phonics, and other perceptual skills of thinking abilities. To base instruction on needs requires thorough, orderly development of skills.

Basic reading instruction is differentiated in terms of pupil needs. This attention to specific needs gives thoroughness, regularity of help, and orderliness to instruction—providing some insurance for individual maturity in interest and skills.

Therefore, the teacher must know each individual child, his personality traits, his needs, his cultural background, his instructional and independent levels of reading, as well as the level of his reading skills development. She must have an organized sequence of skills to present. Then she can plan her instruction, beginning where each pupil is, and help him to mature in his interests, in his automatic use of phonics and his perceptual skills, and in his abilities to think in a reading situation.

The basal reader, used in the hands of a skillful teacher, serves as a well-defined ladder of skills which makes it possible to fit the instruction to the specific needs of the child. Let's think of basal reading as a tool for developing and refining reading skills so that each child can read for pleasure and information.

[2]Constance M. McCullough. "Through Methods and Materials," *New Frontiers in Reading*, Vol. 5 (1960), p. 35.

[3]Emmett Albert Betts. "Reading in Relation to the Total Curriculum," *New Frontiers in Reading*, Vol. 5 (1960), p. 145.

57.

# PART V

## Creating Books for Children

### 1. Writing for Tomorrow's Leaders

JEAN LEE LATHAM

RECENTLY Ellen Lewis Buell of the New York *Times* asked me for a brief answer to this question: "What do you, as a writer, mean to say to your reader?" This was my answer:

I write for our pioneer of tomorrow. I would say to him:

If you are a pioneer, you will find your joy in dreaming about and doing the impossible. Doing the has-been-done thing will be a little bit dull; doing the easy thing will be a downright bore.

No pole vaulter sees any excitement in hopping a three-foot fence; no mountain climber finds any challenge in an afternoon hike through the hills.

It will always be that way with you. So, good luck to you and your dreams and your daring! Some day, another writer will be telling your story, for the pioneers of another tomorrow.

I do not choose the characters I write about. They choose me. The urge to write about a man will strike with the immediacy of a bee sting. I may know little about him; only that his story holds the two must-be ingredients—significance and suspense. There must be significance in what he did and suspense in the risks he ran to do it. When I find those two elements, I know I shall do the long research necessary to tell that story.

A brief sketch of Matthew Fontaine Maury told me I wanted to write his story. He was the man whose *Wind and Current Charts* cut the time of sailing voyages in half. He founded the science of oceanography. He was the guiding spirit behind the first world peace conference in which the United States took part—the Brussels Conference on Ocean Meteorology, in 1853. He was more decorated by foreign governments than any citizen of the United States up to that time. Yet, at the height of that distinguished career, our U. S. Navy retired him, on one-third pay, but directed that he continue the work he was doing. There had to be a story there!

I read the biography of Maury by his daughter. I found what I have come to call the daughter's eye view of a man. It told all about the honors he had won, but very little about what he had done to win those honors.

I wrote to various sources for information to fill those gaps. I was trying to find: A detailed description of the U.S.S. *Brandywine,* launched in 1825. (Sorry; no record.) The identity of the teacher on the *Brandywine.* (Sorry; no record.) A copy of the log Maury used to collect data for his *Wind and Current Charts.* (Sorry; no record.) The minutes of the Brussels Conference of 1853, (Sorry; no record.) A description of the Brooke deep-sea sounding apparatus. (Sorry; no record.)

Armed with my tape recorder, I went to Virginia. I started at William and Mary College. They had several editions of Maury's *Sailing Directions,* which he wrote to explain his charts. I noticed that each edition was thicker than the last. What was he putting in the books, besides sailing directions?

I chose a tome about three inches thick. The first thing I found was a bulky chart. I opened it. There was the log, all twenty-four columns of it. Why was it there? It was with the complete minutes of the Brussels Conference. I copied the chart, and read the minutes into my recorder. Next, I found a full page of pictures with a complete explanation of the Brooke sounding apparatus.

At the Mariners' Museum in Newport News, I found a little book with an interesting title page: *Naval Men, Manners, and Scenery, by a Civilian.* I opened it. The author began something to this effect:



163.

"In 1825, while I was serving as teacher on the U.S.S. *Brandywine* . . ."

When I left Mariners' Museum, I told the librarian I had enough material to keep me busy for the next two years. He told me to be sure to come back for the Jamestown Festival, the spring of 1957.

Jamestown! For twenty years I had been telling myself that some day I should write the story of those early days. I had decided that the first time I read John Smith's tribute to America:

"I own not a foot of land in that world, but it has been my hawk, my hounds, my wife, my child, the whole of my content —this dear-bought land."

Jamestown, Virginia, was a dear-bought land. No victory on a battlefield ever cost us the lives of nine-tenths of our fighters. That was the price of Jamestown—of the first three years of Jamestown—the lives of more than nine-tenths of the settlers.

Yes, I had intended to write it when I had time. Now I knew I would write it, even if I did not have time. That was late in the fall of '54. Maury filled my mind. I must do his story first. But, if I wanted to see *This Dear-Bought Land* published by early '57, I felt that my deadline for writing it was early '56. I'll say one thing of the next eighteen months. I was never bored.

*Trail Blazer of the Seas* came out the fall of '56; *This Dear-Bought Land* came out the spring of '57. By mid-summer of '56, I was deep in another story. I had turned to my first love, the theater. I wanted to tell the story of Joseph Jefferson III, long famous for his portrayal of Rip Van Winkle.

His story had significance. In a day when America imported most of her stars, Jefferson reversed the process. He scored his first great triumph as Rip Van Winkle on a London stage. Then, too, he was known not only for his genius as an actor, but for his qualities as a man. His kindliness, his gentle humor, his integrity, were legend. He was as beloved as Will Rogers was to be.

Suspense? Yes. He was hissed off the stage in St. Louis once; he was stranded in Mexico, during the Mexican War, when the company manager decamped with the funds; he was stranded again in Australia, when his agent lost all Jefferson's money in a poker game.

Probably the biggest risk he ever ran, professionally, was to open in London, with an English cast, as Rip Van Winkle. He had to pay all the bills. Dion Boucicault, who wrote the play for him, thought so little of the idea that he sold the play outright to Jefferson, instead of gambling on a percentage of the profits. Poor Boucicault! Jefferson played *Rip Van Winkle* for forty years.

Even if there had been no suspense in his professional career—and there was—Jefferson's life was full of the risks of travel in those days. His travels began when the *western* terminus of the railroad was at Cumberland, Maryland; when "southwestern United States" meant New Orleans; when Chicago was a raw new settlement, about thirty years removed from the Fort Dearborn massacre.

It is hard to realize the isolation of the traveler then. For instance, in January of 1840, the steamboat *Lexington* burned in Long Island Sound, with a loss of 150 lives. The tragedy happened just sixty miles from Manhattan. It was on a Monday night. The first word did not reach New York City until Wednesday. It was Saturday before the New York papers had enough details to bring out an "extra."

There were no weather reports in those days, no warning of what lay ahead. If a steamboat started north a little late in the season, nobody knew what might happen. It was a toss-up whether it would reach its destination, or be frozen in some river. Or it might explode and burn. Steamboats did not have good safety records.

Besides, Jefferson could not always travel by the best methods. I needed to know the feel of every sort of travel, from keel boat and canal boat to transocean ship, from flat-bed wagon and stage coach to the first railroad cars. Also, what it was like to travel steerage on the deck of a steamboat!

With material about travel well in hand, I turned to Jefferson's autobiography. Here I would find all details of his personal life—I thought. But he had a fiendish habit of saying, "I shall not bore the reader with my personal problems." The only way I could piece together much of that side of his life was to read every

memoir of his theatrical contemporaries, on the chance that I'd pick up something about him here and there. All in all, my reference list on Jefferson was twice as long as for any previous book.

The spring of '57, I went to New York, to check some final details in the Theater Room of the New York Public Library. While I was there, I checked on a few things about my next man—Cyrus W. Field, the promoter of the Atlantic Cable. I had come across him when I was researching on Maury. I had recorded notes from the main biography about him. Again I had found a daughter's eye view of a man. Again I would need to fill in the gaps. I started reading, and a date leaped out at me: August, 1858. That was the date of the first brief success of the cable.

It was then March of 1957. I knew that, once more, I would not be bored. I also knew I wanted to go beyond American records for information about the cable. Before it succeeded, it had cost fourteen years of heartbreak and more than $12,000,000. That was a lot of money in a day when $250,000 was considered a sizable fortune. In 1866, when the cable was a success, the cable was British made; the *Great Eastern* that laid it was a British ship; the captain and crew were British; the electricians and engineers were British; all the money back of it was British. Cyrus Field was the only American on the *Great Eastern*. Yet, some of the men on the expedition called him "the one indispensible in getting the job done." Why? Because he had had the vision and drive to hold men together to that long purpose. But I wanted to know more about what he was holding them *to!*

I wrote to librarians and keepers of archives in Newfoundland and Nova Scotia. I found I could get what I wanted in the Archives of Nova Scotia in Halifax.

While I was in Halifax, a friend asked if I'd like to visit the Cable Relay Station at Canso, on the eastern tip of Nova Scotia. I would! She said she had a relative who "might swing enough weight" to gain us admission.

We went to the cable station, armed with a card that requested the courtesy of a tour. The manager received us with the requested courtesy, but with a touch of bewilderment. I could feel him searching for words to express the XYZ's of submarine-Cable technicalities in ABC's for two dear ladies who—as electronics experts—were doubtless good makers of jelly.

I was glad my assorted past had included four years in electronics during World War II. I was also glad for all the research I had done before I went to Canso.

I asked if I could see a mirror galvanometer. The manager brightened. "In operation!" he said. We saw it. I said, "Since it's still in operation, what about the syphon recorder?"

We had quite an afternoon. He brought out a book slightly smaller than an unabridged dictionary. It was the standard reference book for submarine cable engineers. He said he could get along without it for a few days and he was sure I would find material there that I had not come across.

I did. I found something else that fascinated me—how long that book had been in use. For the author was Sir Charles Bright, who, as a lad of 19, had worked as the engineer in charge on the first Atlantic cable in 1857.

*On Stage, Mr. Jefferson!* came out the spring of 1958; *Young Man in a Hurry, The Story of Cyrus W. Field,* came out that fall.

By then, I had accumulated 32 hours of tape-recorded notes on another man. But that is another story.

Once in a while someone suggests that I "go to a lot of trouble" to write for "mere juveniles." Nothing is too much trouble, when you are writing for tomorrow's leaders.

165.

58.

Vol. 5, 1960

## b. Through Methods and Materials

32. CONSTANCE M. McCULLOUGH

At this stage in the accumulated kn
edge of the teaching of reading, a kn

[1]Emmett A. Betts, "Approaches to Differe
Guidance in Reading," p. 11, reprint from Edu
May, 1950.
[2]Albert J. Harris, *How to Increase Reading A*
New York: Longmans, Green & Co., 1956 (3rd ed
p. 113.



edge so vast that no one has it all at his fingertips, we cannot with good conscience apply to other people's children a method or set of materials until we have measured its value with all of the resources at our disposal. For educating children is not exactly like running a household. Mother can buy a new cleaning product at the supermarket, try it out on the wall, find that it takes the paint with it, and cover the spot with more paint before Father gets home. But use the wrong product or a product in too strong a solution on a child, and you cannot replace the child. Sometimes you cannot even detect the damage immediately, and seldom can you determine its true extent.

Donald Durrell has said that everything is good for something sometime, but not for everything always; that the goal we should have as teachers of reading is to find the something for which the other something is good sometime, and to find the time that this is so. The panaceas, whether method or material, that people would have us buy today to cure the ills of the teaching of reading, are not true cures at all if they are applied wholesale and continuously to the exclusion of other ideas of tested worth. They produce, along with their little goods, new varieties of ills which will be cured by new crops of messiahs. I propose to get off this see-saw, and consider the utility and futility of some of the methods and materials popular today in the intermediate grades.

### Self-Teaching Devices

Self-teaching devices are a necessary development in the intermediate grades, for there are far too many skills to teach and too many levels of them to apply to so varied a population. Teaching machines, workbooks, exercise books, magazines accompanied by tests, and flash cards and games fall into this category. All of these, on occasion, can free the teacher for other work with other children in the classroom. The big question, of course, is "What is this device doing to and for the child?"

The teacher must ask herself, "Is it merely testing something already taught, or is it really teaching? What is it *designed* to do? Does it offer a learning experience in keeping with the best research knowledge? Does it support and extend the effectiveness of my reading program? Is this the most efficient way to do it?" For instance, a teacher wishing to strengthen her word analysis program may have, buried in her manual, exercises which would be better to use, in that they are in the vocabulary the child already knows. She may find in earlier manuals and workbooks in the reader series, ideas for review exercises to reinforce and maintain skills. Unless the wording of the device is within the known sight vocabulary of the children who use it, learning is being made more difficult rather than less.

The teacher must ask, "What allowances must I make for different learning needs of the individuals who use this material?" For some children the pace, the amount and treatment of each topic, are sufficient; for some, too much and too slow; for others, lacking in the links between steps, and in variety of approach. Making material available for individual use is not necessarily the equivalent of providing for individual needs. It may be just marking individual time.

Because self-teaching devices are limited by the insight of the person who made them or by the dimensions of what he attempted to do, they may be poison in excessive use. The teacher must ask, "How much of this is warranted in my program?" The intelligent approach is to say, "If I decide that this addition is valuable, I must use it with temperance and compensate for its inadequacies with greater emphasis upon these in the rest of my program."

The teacher must also ask, "How much learning will go on?" When, day after day, we put children to endless exercises without teacher-pupil conferences or without even pupil-pupil conferences on why one answer is right and another wrong, we are donating a great deal of precious time to a poor cause. A reasonable ratio should be maintained between the time spent in exercise and that spent in studying what the results of the exercise mean. Otherwise, might not the child's time be better spent in reading books, magazines,

166.

and newspapers rather than the artificial devices whose purpose is this end?

## Individualized Reading

There is another facet of this whole matter of individual needs which seems worthy of attention. We can so fragmentize our attention that we lose what effectiveness we might have. Yet we know that to teach new skills and to maintain old ones, we need only to have material that is easy enough for all concerned. It does not have to be the hardest material a child can read. So it is possible, sensible, and efficient, to group together the children who are ready to profit by a certain learning, teach it to them with material all can stomach, and, when it is understood, let the children apply it to materials their own size, for lengths of time warranted by their needs, with teacher help when and where it is required.

A method called Individualized Reading has become very attractive to teachers of late. It stems from the atomizing view of the reading process and of the child, provides self-selection of reading materials, teacher-pupil conferences, and incidental group instruction when the teacher is cognizant of common needs. It has much to commend it, as articles in books by Veatch[1] and Miel[2] testify.

What does research say about it? So far, most of the research has been too uncontrolled and too limited in scope or design to prove anything conclusive. But there are straws in the wind.

Logic would tell a person of some background in the reading field that a method which contains early and continuous diagnosis, high pupil motivation, much independent reading, and teacher-pupil conferences, should certainly produce good effects. But logic would also suggest, however, that a method which fragmentizes the teacher's efforts, and provides little time with each pupil, no regular preparation for new vocabulary, no systematic guidance in adjustment to different purposes, no systematic development of techniques to probe meanings, no common base of sight words upon which to build word analysis techniques, and no systematic, gradual increase in the difficulty of materials and tasks, would, in the long run, be less beneficial.

It must be suspected that children who have had a steady diet of basal reader reading but not enough attention to the reading of other materials, would have a backlog of competence which, ignited by the opportunity to read widely with occasional teacher help, would produce quite a flame. But the fire could be expected to die down when the inefficiency of the wide-reading glut produced less than the usual learning. This suspicion is borne out by the Safford study in Los Angeles County (a master's thesis at the University of Southern California), which compared reading test results of individualized reading classes after several years of that method, with the results of classes using an approach which combined basal, functional, and recreational reading. The study showed that the rate of average reading growth declined markedly under the individualized reading method, and that there was no special advantage in the method for the superior reader.

A study by Sartain in Minnesota[3] also helped to clarify the value of Individualized Reading. It compared the results of this method with the results of an established program such as Russell and Bond have described in their professional texts. The study lasted only six months, so that it did not test the decline theory, but the evidence in both test results and teacher opinion was in favor of the established program. The conclusion was that teacher-pupil conferences should become a part of the latter program.

It would be refreshing if future research would deal with the amounts of self-selection and teacher-pupil conference which are desirable in a program of basal, functional, and recreational reading, and with ways of making the home more useful in self-selected activities. It is futile to continue to set up straw men and to insist that one must be either for or against

[1] Jeannette Veatch, editor, *Individualized Reading*. New York: Putnam, 1959.
[2] Alice Miel, editor, *Individualizing Reading Practices*. New York: Bureau of Publications, Teachers College, Columbia University, 1958.
[3] Harry Sartain, "Individualized Reading: A Summary and a Report of Experimentation," Roseville Public Schools, St. Paul 13, Minnesota, December 1, 1959.

167.

Individualized Reading. There is a movement afoot in ASCD to promote widespread experimentation with this method. It will be unfortunate if it is done on an either-or basis.

## Basal Readers and Associated Materials

Basal readers have for a long time dominated the teaching of reading in the elementary school. Let us consider some questions about their use:

1. Should all fourth graders be put into a fourth reader? Children should be diagnosed for their level of reading before they are "put" anywhere.

2. Should a teacher put her better fourth grade pupils into a fifth grade reader? The fourth grade reader is designed for good and better readers for that grade level. Why skip it? A basal reader with its associated materials constitutes a type of teaching machine. The beauty of this machine is that the teacher can administer its pace, determine safe omissions, and add to it, as individual needs dictate.

3. Should a teacher skip around in a reader, choosing stories according to season or topic? The reader was not designed for this purpose and loses its value as a developmental sequence if this is done.

4. Should a teacher accelerate her pupils through a basal reader for one semester and then leave the rest of the year for enjoying the fruits of this labor? Not unless she would also take double doses of vitamins until February and then none again until September.

5. What modifications should a teacher make in using a second reader with slow pupils in the fourth grade? The approach to the lesson, the point of view of the questions, and the follow-up activities should be altered in recognition of these children's lesser maturity.

On the debit side, reader series have suffered by misuse—by being used as the whole reading program instead of as part of it, by being misapplied to a child of lower reading level than the book, by being used without regard to manual lesson plans and individual needs. On the credit side, reader series have given those who know them well a conception of the teacher's broad responsibilities for reading growth, and a gamut of techniques to adapt in helping children read textbooks, trade books, and periodicals. They have given reading specialists a practical outlet for their best thinking; and those interested in all phonics or all individualized reading, something to criticize.

## Evaluation Instruments

Evaluation instruments have yet to catch up with the concept of reading which we hold today—reading as a many-faceted set of skills, understandings, appreciations, and attitudes. We still have no comprehensive test of the dimensions of vocabulary; still, at the intermediate grade level, no measure of a child's sensitivity to excellence in literature.

Now available in manuals, professional books, and courses of study are check-lists and records of reading growth. Manuals and workbooks offer review tests of skills which can be used as inventories in diagnosing pupils' needs and achievements. Tests which accompany basal readers offer teachers extensive help in determining level and kinds of reading competence, if only they will study the tests and the manuals of the tests instead of looking so eagerly for the total score and the norm.

The effectiveness of our work depends a great deal upon good diagnosis of needs and accurate assessment of achievements. We have far to go.

The wisest use of our methods and materials for teaching reading in the intermediate grades still rests with the future. While we have discovered many fine ingredients for a reading program, we still dispute the when, how, and how much. We have a problem in making wise decisions because our very calling requires the faith and zeal of the evangelist or politician. An anthropologist has said that man has too much adrenalin and too little wit to view his world objectively. But I should hope that in this important work of ours we would not mistake heat for light; we would respect people's right to be zealous but would not mistake enthusiasm about a product or method for objective evidence of its worth. When we choose a course of action or set of materials to apply over a long period of time to our only and precious human resources, we cannot shirk the duty of acting with wisdom.



168.

59.

# LITERATURE AS PART OF THE READING PROGRAMS

## A. PRIMARY LEVEL

### 1. Towards Greener Pastures: Building Permanent Recreational Reading Interests through the Elementary School Library

ALICE BROOKS MCGUIRE
Casis School, Austin

THE JOYS OF exploring a rich heritage of literature should be a part of every child's daily life from his very first day of school. Indeed, his association with the book world ought to start with the cradle, but unfortunately the teacher's influence is not so far-reaching. The early years of childhood are in the hands of the family where much depends on the parents' interests in reading and whether the home environment is a book-rich one. Older siblings who have caught the spark from teachers, classmates, and the school library may exert an influence on younger children but such occasions are much too infrequent. Therefore, the development of a reading habit and an appreciation of good literature are very much in the hands of teachers and librarians.

#### The Classroom's Role

If the elementary school has a central library, well stocked with attractive, worthwhile books and presided over by a professional librarian, the teacher has a right to expect much help from this source. However, guidance of children's reading is a cooperative venture in which the classroom plays a key role. Each teacher should have a reading program over and beyond the basic essentials that depend on a group of reading texts.

A constantly changing collection of exciting, attractive books flowing continuously from the library to the classroom invites each child to browse and read when he has finished his assignments. This atmosphere, of course, is never left to chance. All children should have an opportunity to read on their own at some specific time during each school day in a quiet, conducive atmosphere. There is enjoyable companionship in that quiet time when classmates sit down comfortably to explore the exciting world of books. As a related activity, we encourage children to share their books with their classmates in various ways. By so doing they absorb better what they read, develop literary discernment, and acquire the ability to express what they think about a good book. Such sharing experiences capture the attention of the reluctant child, sparking him to read for himself and to participate in the discussion.

In addition to these quiet reading periods, the teacher always has some exciting book at hand from which she reads aloud daily. Right after lunch is a good time. It is important to select worthwhile books—those that have universal appeal and are rich in values. The episodic chapters in Carolyn Haywood's books, for example, are perfect because they balance the satisfaction of completion against the anticipation of wondering what will happen to Eddie, Betsy, or Robert tomorrow.

In pondering the benefits of reading aloud, I am reminded of one incident of book-sharing in "Winnie-the-Pooh" which never fails to bring a companionable chuckle from children and adults alike:

> Pooh Bear began to sigh and then found he couldn't because he was so tightly stuck; a tear rolled down his eye, as he said:
>
> "Then would you read a *Sustaining Book,* such as would help and comfort a Wedged Bear in great Tightness?" So for a week Christopher Robin read that sort of book at the north end of Pooh, and Rab-



169.

bit hung his washing at the South end. . . .
And at the end of the week, Christopher Robin said, "Now!". . . And Winnie - the - Pooh Bear came-free! *(1)*

Reading aloud to a class of children does not have the therapeutic effect of curing obesity, but the comforts and joys of sharing a "sustaining" book have other values less tangible but even more far-reaching and permanent.

All children visit the library regularly for browsing, selecting, and reading their own books. We do not mean a scheduled period, perhaps once a week, when the whole class comes in regimented fashion, but at various times throughout the week, when a child is definitely on his own in the world of books. Teachers need to have some plan so that no child is overlooked. Many teachers in our school divide their classes into five small reading groups. While the class has formal reading in the room, each group comes to the library in rotation, one a day, to read and explore. Or the groups may come more frequently by any plan the teacher devises. In the central library the children find books of every type and level from which to select. Colorful easy chairs invite them to curl up in solitary comfort—or some may prefer to stretch full length on a warm blue rug to read. The librarians are close at hand to see that they find the right book and are not disturbed. Individual guidance is more effective with a small group than with a whole class.

As a part of the reading program, no child should be without his library book. One of our teachers tells parents that her major home assignment is that the children have an evening period of at least one half hour, free from TV, household tasks, and other distractions, to devote to quiet reading. It is not surprising if the half hour becomes a full hour.

### The Library's Role

The library's role in promoting a permanent reading habit is of prime importance. If, during elementary years, children have continuous association with the large, attractive collection and the reading atmosphere of a library, they are imbued with a permanent enthusiasm for books. I speak from my long experience as an elementary librarian and I *know* this condition can be true.

During the first few days of school the primary classes are invited to visit the library to glimpse the exciting treasures and experiences it has in store for each child. At our school the child sees a whole library wing where color is rampant. In the informal area there are many easy chairs surrounding the big blue rug. Low stools are provided for the children to sit in front of the shelves and browse. Up a spiral staircase is an intriguing balcony where the reader can become lost to the world about him. The children meet the library staff, friendly people who are always there to help.

### Library-Sharing Periods

The initial visit is followed by weekly literature-sharing periods for each classroom. The librarian uses these periods to present reading in many exciting ways. Sometimes it is a story hour when the children cluster on the blue rug to come under the spell of a timeless folk tale told by a competent storyteller. At other times a member of the staff discusses books and reading in a carefully planned program, using a variety of approaches. Perhaps the theme is set by the season, a particular holiday, or some special event.

Frequently the programs reflect some unit in progress in the classrooms. For example, when a third grade was studying *Indians,* a series of library periods was designed by the librarian and teacher to point out the many different kinds of books to read and use—stories, folk literature, biography, and factual materials. We showed how to find books through the card catalog and sampled excerpts from each type. For a first-grade unit on *cats,* the teacher asked for a bibliography of titles that the children would enjoy. This task was easy. And soon every child had his own special "cat" book. I still recall how the children laughed when we read the dedication in Beatrice De Regnier's *Cats, Cats, Cats, Cats (2).*

One important aspect of relating library periods to units is the follow-up activity in the classrooms. Teachers may continue reading the books introduced by

170.

the librarian. Children are also given the opportunity to check out similar books for their personal reading. Any unit is greatly enriched by using a wide variety of books both in the classroom and the library. At the same time children's reading develops in depth and purpose.

Another approach is to present a certain type of literature. A second-grade teacher suggested that we use *biography* for one sharing period. This time the children sat in front of the biography shelves. The term was discussed and simple biographies about Washington, Lincoln, Daniel Boone of TV fame, and other popular heroes were located. During the sharing time a chapter from Jean Lee Latham's *Sam Houston, Hero of Texas (3)* was read aloud. At this age when children are very responsive to poetry, we can do much to prevent later apathy or even antipathy towards the poetic form. From time to time, it is good to share one or two lovely poems as part of a period. Sometimes the whole program is on poetry.

All too frequently children fail to identify the fine people who create their books. Anything we can do to make them more aware of authors and illustrators enriches their reading. Newbery and Caldecott award time provides one occasion for introducing some of the finest. From time to time a certain author or illustrator and his best works may form the theme of a literature program. Our kindergarten teachers are doing a fine job of developing an awareness of author-illustrators. Just mention Robert McCloskey or Maurice Sendak to the children and without hesitation they can name the books of each.

In the first grade, there is an exciting unit called *The People Behind Our Books*. During this study the librarians become important resource people. Not only are authors and illustrators introduced, but publishers as well. Our local authors and artists are invited to come and talk to the children about their books.

## Quality Reading

Before concluding this rambling discussion, I should like to stress the importance of *quality* reading in childhood. We might adopt as our slogan, READ, READ WIDELY, READ DEEPLY. Once we have motivated enthusiasm for reading among children, we have a further obligation to provide positive guidance and direction in what they read and how they respond. Even the avid readers have problems. The appetite is there, but it often tends towards a monotonous diet of saccharine literature (or perhaps of the more violent type). The child needs our guidance towards a richer type of reading. He needs to savor more deeply what he is reading—to grow in appreciation and understanding.

There are four prime weaknesses in the avid reader:

1. He reads in a rut.
2. He reads with mediocre ability.
3. He "gulps" his books.
4. He fails to appreciate the values in good books.

These weaknesses are all too apparent in the reading of older boys and girls when it is too late to correct them. At the primary level the reading habit is just being formed. Here we have the opportunity *and* the responsibility to forestall these pitfalls. We have the materials, we have the occasions, and we have the spontaneous, receptive enthusiasm of the younger child on which to build.

Finally, try to bring some beauty into the life of children each day through literature. Help them to savor great moments in books. Ours is a realistic age but we need scope for imagination. We must develop dreamers as well as doers, because this scientific age cannot achieve without vision. Henry Thoreau said, "I love a wide margin to my life." We can and must provide this wide "margin" for children through the medium of reading and fine literature.

### REFERENCES

1. Milne, A. A. *Winnie-the-Pooh*. New York: Dutton, 1954, 28-31.
2. De Regniers, Beatrice Schenk. *Cats, Cats, Cats, Cats, Cats*. New York: Pantheon, 1958.
3. Latham, Jean Lee. *Sam Houston, Hero of Texas*. Champaign, Ill.: Garrard, 1965.

171.

60.



Vol. 5, 1960

## b. The Influence of Personal Factors on the Reading Development of Children

ANNE SELLEY MCKILLOP

In recent years we have recognized that how a child reads, what he reads, and how much he reads are expressions of all that he is. Every aspect of his development and his every characteristic have an influence upon his reading. It is easy to accept this generalization, but it is much more difficult to disentangle the threads by which characteristics, feelings, and experiences are related to reading skill, interest, and choice.

Much of what we know about the influence of personal factors on reading comes from studies of the children who have had difficulty in learning to read, and it is tempting to approach our topic from this point of view. We shall, however, resist this temptation, and attempt to look at not only the negative but also the positive effect of personal factors upon reading.

In any reading situation there are two elements, the child and the material he is to read. It seems logical that how he feels about the content of what he is reading will exert an influence upon his choice of material, his understanding, and even his memory of what he has read. Psychological research has documented these logical conclusions. Many investigators have shown a relationship between attitude and perception, between attitude and interpretation of reading material, and between attitude and memory for material read.

In any situation one tends to see that which he is expecting to see. If you are looking for a lost red ball, you will see bits of red which you have never noticed before, a red flower, a red label from a can, a scrap of red cloth. In a similar way attitudes provide a set for our perceptions. I am often amused at the way I misread words on posters in headlines. Just the other day I noticed a headline which, I thought, said "Seven Canadians Elevated." On closer look I realized it had said, "Seven Cardinals Elevated." I am a Canadian and my national pride had influenced my perception. Once you become aware of this tendency for feeling to distort perception you will find many examples in your own experiences and in your work with children.

Strong feelings and attitudes appear to affect the reader's skill in critical reading.[1] If his feelings are deeply involved, he is less able to be objective, to see what the

[1] Helen J. Crossen, *Effect of Attitudes of the Reader upon Critical Reading Ability*. Chicago: University of Chicago, 1947, 133.

172.

author is saying, and to evaluate it accurately. If you, for example, have strong feelings about a certain method of teaching reading, it will be difficult for you to read critically a passage which supports your belief—you will think this author good no matter what he says. It will be equally difficult for you to read an article attacking your position—you may misinterpret what the writer is saying by confusing what he really says with what you think anyone who is opposed to your position would say. There seems to be less effect from attitude on reading tasks which require a specific report of exactly what the author said than there is on tasks where the reader is allowed to make judgments regarding the author, his purposes, and the general idea of the passage.[2]

There is some evidence that critical reading can be measured and taught. It is in the upper grades of the elementary school that we set forth such an objective for the reading program. We ought, then, to be alert and help children be alert to the distorting effects which strong feeling may have. I recall a skillful fifth grade teacher in Western Canada who found a group of youngsters rejecting stories about French Canada, and, when they were required to read the stories, giving very biased interpretations of the content. This teacher seized the opportunity for a series of lessons on French Canada. She wove in stories of the early explorers, pointed out how much Canadian exploration had been done by the French, brought in French records so the children could hear the language, provided some easy French books, and encouraged children to read the French instructions on the packages in their homes. By the time the children returned to the rejected story, they approached it with a different attitude, and were able to be somewhat less prejudiced in their interpretation. Such a simple technique does not, of course, touch the deep roots of prejudice but it can help youngsters to free themselves from the bonds of their biases.

Memory, too, serves attitude. We tend to remember those things which we wish to remember and which fit in with our already established beliefs. Each of us will tend to pick out from the lectures he hears those ideas which he already holds and then remember them, disregarding those ideas which do not suit his pattern of thought. This is true, also, of reading. Material which conforms to an already held belief is more readily recalled than material which runs counter to such beliefs.

Attitudes affect perception, interpretation and memory. They also help determine our choice of reading material; we tend to choose material which confirms those opinions and beliefs which we already hold. In adults this tendency is seen in our subscription to and reading of those periodicals which confirm our already established political opinions. In children it is less clearly seen but it is "in the making."

Beliefs, prejudices, and attitudes are learned through experience. In this way a child's experience affects his reading. But experience operates in another way—it is the raw material from which meaning is built. The word "lake" can mean little to a child who has never seen a fairly large body of water; "elevator" means one thing to a New York child, another to a prairie youngster. Certainly life experiences constitute a personal factor of importance in reading.

The relationship between understanding, feeling, and reading skill is illustrated by Mrs. Ashton-Warner[3] in her description in *Spinster* of the struggles and triumphs of a New Zealand teacher and a class of Maori children. Mrs. Ashton-Warner speaks of the Key Vocabulary of her Maori children, the words these children choose to learn when they were encouraged to tell of their experiences. Note that the teacher kept for each child only those word cards which he remembered. Here there is no emphasis on the words forgotten but only on the remembered.

> Today I work on Rangi, a five-year-old Maori. Nothing will make him learn the first words of the imported books. Yet they seem normal enough words. "Come and look." "See the boats." "Little Dog." "See

[2] Anne Selley McKillop, *The Relationship Between the Reader's Attitude and Certain Types of Reading Response*, Teachers College, Columbia University, New York, 1952, 101.

[3] Sylvia Ashton-Warner, *Spinster*. New York: Simon & Schuster, 1959, p. 242.

my aeroplane" . . . . But Wiki and Rangi and other like them, sit and smile and never recognize them again. All this toil, I think, trying to teach them something that doesn't interest them and trying to force them to like something they hate. Why must we? Why don't I teach them something that does interest them? . . . . What does interest them?

"What is Rangi's background?" I ask the Head.

"His father is a pugilist who runs a gambling den at the pub."

"What are you frightened of, Rangi?" I ask as he sits in a knot of others.

"P'lice."

"Why?"

"P'lice they takes me to gaol and cuts me up with a butcher-knife."

I print these words on separate cards and give them to him. And Rangi, who lives on love and kisses and thrashings and fights and fear of the police and who took four months to learn "come," "look," "and" takes four minutes to learn:

| | |
|---|---|
| Butcher-knife | Daddy |
| Gaol | Mummie |
| police | Rangi |
| sing | haka |
| cry | fight |
| kiss | |

So I make a reading card for him: out of these words, which he reads at first sight, his first reading, and his face lights up with understanding. And from here he goes on to other reading, even the imported books. His mind is unlocked, some great fear is discharged, he understands at last and he can read.

I think we are safe in assuming that a child is likely to remember a word that is important to him, a word that means something vivid and real in his experience. Even children who come from privileged homes have their "Key Vocabulary," words which have special meaning for them. Betsy, a five-year old, saw a big box delivered to her home just before Christmas. To her question about what was in it her Mother replied, "Wait until Christmas." Later that evening she was found laboriously copying the letters which she found on the box: T-E-L-E-V-I-S-I-O-N. Next day she took this crumpled bit of paper to her kindergarten teacher and asked, "What does that say?" This was one of the words in her key vocabulary, and a good illustration of how personal factors may influence reading. Mary, another five-year-old, was despondent over the departure of a beloved aunt. After a few minutes of dejection she asked her Grandmother how to write "Anne" because, as she said, "We are two Anne's—she is Auntie Anne and I am Mary Anne." She spent the better part of an hour copying her name, her aunt's name and pointing out again and again to her Grandmother what these little black marks said. This was part of *her* Key Vocabulary, a bit of reading skill acquired because of love and because of experience with separation.

If we could find in school ways to tap the experiences which are most significant in children's lives and put written words to these experiences, we would go a long way toward solving the problem of "readiness," and toward harnessing personal characteristics and experiences in the service of learning.

The child's experience will not only help to determine which words are "easy" and which are "hard" for him, but they will also determine how he feels about reading and how important it is for him. To some children it is a valuable tool which will unlock a world of wonders; to others it is a meaningless hoop through which we ask them to jump.

Beyond the influence of the child's experiences on his reading skill we find the influence of his most intimate thoughts feelings, and attitudes. He, himself, is not always aware of these influences. What does reading mean to him—not just as "reading" but as a symbol of something else? Does he see reading as an important grown-up activity, one he aspires to engage in as quickly as he can? Or does he shy away from the whole idea of growing up? If he is eager to grow up and if he sees reading as a grown-up activity, he will be eager to learn. But if he is reluctant to leave the cosy safety of babyhood, reading may hold little appeal for him.

Certain investigators, for example Rubenstein and others,[4] have hypothesized that reading is essentially an aggressive act. One "devours a page," "eats up knowledge," has in one fashion or another to "attack" the printed word. Such workers feel that children who have unusual difficulty learning to read are often children who have great difficulty handling the

[4]Ben O. Rubenstein, M. L. Falick, Morton Levitt and Rudolf Ekstein, "Learning Impotence: A Suggested Diagnostic Category," *American Journal of Orthopsychiatry*, 29: pp. 315-323.

aggression which is a normal part of growing up. These children are terrified of their own aggression; they dare not expend any on the printed page lest they be carried off by the strength of their feelings and no longer be in control of their hostile impulses. They may be afraid to "look," since looking may seem to be fraught with danger. Seeing the printed word becomes a way of knowing and these children may be afraid to know. They may be afraid to be aggressive because their aggression is overpowering, and they may be afraid to learn because they are afraid to be curious. If these fears are barriers to learning to read, we must take these feelings into account in our analysis of the personal factors which influence reading skill. How the child feels about his aggressive impulses, whether he is overwhelmed by them or is able to handle them reasonably well; how he feels about knowledge, whether he is eager to learn about anything which catches his fancy or is in some vague way ashamed of his curiosity; these will be important influences on his reading skill.

A child's reading is influenced not only by his attitudes, experiences, and feelings about reading but also by his feelings about himself and his success. Walsh[5] found that among nine to eleven year-old boys, the poor reader was more likely than the adequate reader to portray himself in doll play as "restricted in action; unable to express his feelings appropriately and adequately; being criticized, rejected, or isolated; and acting defensively, through compliance, evasion or negativism." A child's confidence in himself is an important factor in success in reading.

Another attitude which may be crucial in the child's reading is how he feels about success. Most teaching programs depend on a child's success in the reading process to keep him interested, striving, and satisfied. This assumes that a child wants success, that he feels it is within his reach and that he achieves it reasonably often. Although we know this, we find when we look at children in school that not all children achieve a reasonable measure of success, and some do not seem to care. It is as if they cultivate failure. If a child is afraid of success because it seems in some way threatening to him, if he feels that he doesn't deserve to succeed because he is in some way unworthy, it is not much wonder that he will not learn to read. He has to fail, either to prove to himself that he really isn't any good, or as a punishment for his unworthiness, or to keep himself safe from the threats of success.

Experience, attitudes toward the material, toward reading, and toward one's self all exert an influence on reading. This influence can be found on every aspect of reading skill, word recognition, comprehension, speed, recall, selection and interest in reading. We have already seen, for example, how word recognition may be influenced by the child's experiences, or by his feeling regarding curiosity. We have seen too, how comprehension may be influenced by attitude and by experience.

Speed, too, shows the same effects. Some children are slow readers because they do not have the experiences to help them understand what they are reading about. Others are slow readers because they are excessively cautious. It seems dangerous for them to take a chance and go quickly in case they miss something. Boredom with the material, or intensely negative feelings about it may also result in slow reading.

Many youngsters in the intermediate grades are able to recognize the words, can understand what they read, and are even able to cover material at a reasonable rate. Immediate recall is good, but after a few minutes they seem to have forgotten everything they read. These are the children who complain that they read the assignment, but "don't remember." Again personal factors may be the culprits. It may be the resistive effect of strong feelings, or lack of experience to make the material meaningful, or unconscious fears of success.

What a child reads and how much he reads may also be influenced by personal factors. We have seen that he tends to choose material which is in line with his attitudes. He may choose material which appeals to him because of his past experiences. If he has been fishing with his father, books about fishing may have a special appeal. He may choose material which helps him to escape from the routine of his everyday life. There is some evidence that children who were not good readers tended to choose more material dealing with family life and sports than did good readers. Was this because they needed the security of vicarious family life, and the achievement of vicarious sports?[6]

Whether a child is a bookworm or a reluctant reader may be in part a product of personal factors. It is true that interest in reading is in part the result of skill in reading, but skill is also a result of personal factors, and even with equal skill one child may find great pleasure in books, another may turn to them only when there is nothing else to do. There is some evidence that good readers may be more withdrawn than less skilled readers while the less skilled are more aggressive than the good readers.[7] It is true that for some children reading may be a substitute for friends, or for more active pursuits.

So far we have looked only at personal factors in the child's life and their influence on reading. But the personal factors in the teacher's life may also have an effect on the development of the child's reading. The teacher's values, his feelings about reading, and about children's difficulties, his attitudes toward the material read will affect the way he teaches reading and consequently what his pupils learn.

What can the teacher do? He can be aware of his own personal values and of the values of the children. He can attempt to provide reading experiences which will be furthered by personal factors rather than hindered by them. He can help even young children become aware of the tendency of attitude "to serve desire before it serves truth." He can become alert to those situations in which personal factors are barriers to learning and seek help in the demolition of the barriers.

[5]Anne Marie Walsh, *Self-concepts of Bright Boys With Learning Difficulties*. New York: Bureau of Publications, Teachers College, Columbia University, 1956, p. 52.

[6]Charles H. Reed, "Interrelationships of Various Measures of Personality and Reading in Two Sixth Grade Classes," unpublished masters thesis, University of California, Berkeley, 1948.

[7]Robert S. Steward, "Personality Maladjustment and Reading Achievement," unpublished doctoral dissertation, University of California, Berkeley, 1947.

61.

Vol. 9, 64



# 3. A Study of the Cloze Comprehension Technique in Relation to Structurally Controlled Reading Material

ROBERT B. RUDDELL

READABILITY research has attempted to combine numerous factors into formulae which will predict levels of difficulty of written materials and thus facilitate the reader's meaningful level of operation. The multiple-correlation coefficients derived by correlation of specific vocabulary and language structure factors with independent comprehension measures have produced coefficients ranging from .51[1] to .72.[2] The specific factors considered account for only 25 to 51 per cent of the variance in the comprehension scores. A large proportion of the variance is thus unaccounted for in the studies of readability which involve specific variables.

One of the basic problems in readability research centers about the adequacy of the test instrument used in measuring reading comprehension.[3] Recent application of a relatively new comprehension technique known as the cloze comprehension test would seem to hold promise for use in readability research. This is a test constructed by deleting every fifth word in a running series of at least 250 words. The test is then administered by asking the subject to attempt to complete the blank spaces which have been substituted for the deleted words. This method of test construction eliminates the language difficulty in the traditional comprehension multiple-choice question and the concept difficulties resulting from the wording and the type of question asked.

Most studies which have utilized the cloze technique up to this time, however, have considered a response correct only if it matches the exact word deleted from the original reading passage. The exact deletion method of scoring cloze comprehension responses has been utilized in research studies reported by Taylor,[4] Bormuth,[5] Coleman,[6] Rankin,[7], and Fletcher.[8] Only in a study by Taylor[9] involving 12 adults and three cloze tests has a synonym count scoring method been considered. Taylor compared the proportions of total scores associated with each of three cloze passages on an exact deletion and synonym count. His data indicated that, although the synonym count increased the total score, it did not improve the discrimination between passages. He concluded that the evaluation and scoring of synonyms appeared to be unprofitable. Thus research on the cloze comprehension technique has given little attention to the effect of the type of cloze comprehension response on the metrical properties of the cloze comprehension test and the effect of patterns of language structure on the discrimination power of the cloze comprehension test.

## Purpose

The purpose of this study was (1) to investigate the metrical characteristics, specifically the reliability and validity, of the cloze comprehension test in relation to an exact deletion method and a synonym count method of scoring cloze responses, and (2) to study the discrimination power of the two scoring methods of the cloze comprehension test on reading materials written with high and low frequency patterns of language structure.

The null hypotheses tested in the study were:

---

[1]Edgar Dale and Ralph W. Tyler. "A Study of the Factors Influencing the Difficulty of Reading Materials for Adults of Limited Reading Ability," *Library Quarterly*, 4:384-412, July, 1934.

[2]Rudolf Flesch. "Measuring the Level of Abstraction," *Journal of Applied Psychology* 34 (December, 1950), pp. 384-90.

[3]Irving Lorge. "Readability Formulae—An Evaluation," *Elementary English* 26 (February, 1949), pp. 86-95.

[4]Wilson L. Taylor. "Cloze Readability Scores as Indices of Individual Differences in Comprehension and Aptitude," *Journal of Applied Psychology* 41 (February, 1957), pp. 19-26.

[5]John R. Bormuth. *Cloze Tests as Measures of Readability and Comprehension Ability.* Doctor's thesis, School of Education, Indiana University, Bloomington, 1962, 195 pp., typed.

[6]E. B. Coleman. "Improving Comprehensibility by Shortening Sentences," *Journal of Applied Psychology* 46 (April, 1962), pp. 131-134.

[7]Earl J. Rankin. *An Evaluation of the Cloze Procedures as a Technique for Measuring Reading Comprehension.* Doctor's thesis, University of Michigan, Ann Arbor, 1957, 221 pp., typed.

[8]Junior E. Fletcher. *A Study of the Relationships Between Ability to Use Context as an Aid in Reading and Other Verbal Abilities.* Doctor's thesis, University of Washington, Seattle, 1955, 95 pp., typed.

[9]Wilson L. Taylor. "Cloze Procedure: A New Tool for Measuring Readability," *Journalism Quarterly* 30 (Fall, 1953), pp. 415-33.

176.

1. No significant differences will be found between the following two sets of reliability coefficients, calculated by the split half reliability coefficient method: (a) the coefficients for the cloze comprehension tests scored by the exact deletion method, and (b) the coefficients for the cloze comprehension tests scored by the synonym count method.

2. No significant differences will be found between the following two sets of validity coefficient: (a) the coefficients calculated between the scores on the cloze comprehension tests tabulated by the exact deletion method and scores on a standardized reading test of paragraph meaning, and (b) the coefficients calculated between the scores on the cloze comprehension tests tabulated by the synonym count method and scores on a standardized reading test of paragraph meaning.

3. No significant differences will be found between the means of the cloze comprehension tests written with high and low frequency patterns of language structure when scored by (a) the exact deletion method, and (b) the synonym count method.

4. No significant difference will be found between the following two correlation coefficients, as estimated by the statistic Epsilon, (a) the coefficient between the scores on the cloze tests tabulated by the exact deletion method and the frequency of occurrence of patterns of language structure used in the reading tests, and (b) the coefficient between the scores on the cloze tests tabulated by the synonym count method and the frequency of occurrence of the patterns of language structure used in the reading tests.

## Procedure

A series of six reading passages was written utilizing patterns of language structure which were found to represent a wide range of frequency in the oral language of fourth grade children. These patterns were used in the same proportional frequency in which they occurred in the oral language of fourth grade children. The patterns and frequency values were based on data collected in a study by Strickland.[10] Three reading passages (IA, IIA, IIIA) were prepared utilizing only those patterns found in the high frequency range occurring from 25 to 202 times (e.g., f = 202

A big rock could destroy the ship)
1 2 4

The patterns in the low frequency range, occurring from 2 to 15 times were similarly utilized in writing three reading passages (IB, IIB, IIIB) (e.g. f = 15

The leader gave the weary men
1 2 3

time to rest). The passages were equated
4

in difficulty at the 4.9 level of readability by controlling the variables of vocabulary and sentence length through the application of the Dale-Chall[11] readabiliy formula. The story content was controlled by limiting the subject matter to specific areas of science content. Cloze comprehension tests were constructed from each of the reading passages by deleting the fifth word from the beginning of each of the reading passages, and every fifth running word thereafter throughout each of the 254-word reading passages.

The tests were arranged in all possible combinations to minimize the possibility of order effects contaminating the data. The instruments were then administered to 131 fourth grade pupils randomly selected from the total fourth grade population in a metropolitan school district. This district was selected because it encompassed the identical schools from which the original fourth grade oral language recordings were obtained for the analysis of patterns of language structure in the study by Strickland. The paragraph meaning test of the Stanford Achievement Test, Intermediate Form, was administered the week preceding the administration of the cloze tests.

The cloze comprehension tests were then scored by two methods on the basis of two sets of criteria.

The exact deletion method counted a cloze comprehension response correct if the cloze item was the same word as the

[10]Ruth G. Strickland. *The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children*, Bulletin of the School of Education, Indiana University, vol. 38, no. 4, Bloomington, July, 1962, 131 pp.

[11]Edgar Dale and Jeanne S. Chall. "A Formula for Predicting Readability," *Educational Research Bulletin* 27 (January, 1948), pp. 11-20, 28.

177.

word deleted form the original reading passage. Phonetic spellings and spellings providing adequate information indicating that the response was identical to the deleted word were counted correct.

The synonym count scoring method consisted of a synonym count in addition to the exact word responses. Correct responses for the synonym count were determined on the basis of the following criteria:

1. The response must complete the original idea or thought expressed in the context of the sentence.
2. The response must fit the original syntactic pattern of language structure.
3. The response must be grammatically correct in terms of number agreement.
4. The response to a deleted cloze item which was a hard word, defined as a word not found on the Dale list of 3,000 words, must be a hard word.

Each of the six 50-item tests for the 131 subjects was scored a second time for both methods to insure correct scoring of items.

**Results**

The reliability coefficients for the cloze comprehension tests were calculated by using the split-half reliability coefficient method with odd and even items and corrected by the Spearman-Brown Formula. The criteria necessary for the use of this method of determining reliability were met by the study.[12] The significance values between the correlations are presented in Table 1.

All correlations were significant at the .01 level. No significant differences were found between reliability coefficients in the cloze tests scored by the two methods with the exception of test IA, which contained extremely high frequency patterns of language structure .Thus, the first null hypothesis of no significant difference in reliability coefficients on cloze tests scored by the two methods was accepted, with the exception of the cloze test containing extremely high frequency patterns of language structure.

The validity coefficients were calculated for (a) the cloze comprehension tests scored by the exact deletion method, and (b) the cloze comprehension tests scored by the synonym count method, by correlating each set of scores with the paragraph meaning test of the Stanford Achievement Test. The significance values between the two sets of correlations were then calculated. These data are presented in Table 2.

[12]Harold Gullikson. *Theory of Mental Tests.* John Wiley and Sons, Inc., New York, 1950, pp. 198-210, 215.

TABLE 1

SIGNIFICANCE VALUES BETWEEN RELIABILITY COEFFICIENTS OF THE SIX CLOZE COMPREHENSION TESTS CONTAINING HIGH (A) AND LOW (B) FREQUENCY PATTERNS OF LANGUAGE STRUCTURE FOR THE EXACT DEPLETION AND SYNONYM COUNT SCORING METHODS

| Test | Exact deletion reliability | Synonym count reliability | Significance value |
|---|---|---|---|
| IA | .851 | .919 | 3.87* |
| IIA | .874 | .891 | .93 |
| IIIA | .878 | .899 | 1.20 |
| IB | .866 | .909 | 2.46 |
| IIB | .896 | .913 | 1.12 |
| IIIB | .899 | .916 | 1.16 |

NOTE: Significance value must exceed 2.58 to be significant at the .01* level of confidence.

TABLE 2

SIGNIFICANCE VALUES BETWEEN CORRELATIONS OF THE SIX CLOZE COMPREHENSION TEST SCORES, CONTAINING HIGH (A) AND LOW (B) FREQUENCY PATTERNS OF LANGUAGE STRUCTURE, WITH THE SCORES FROM THE PARAGRAPH MEANING SECTION OF THE STANFORD ACHIEVEMENT TEST, FOR EXACT DELETION AND SYNONYM COUNT SCORING METHODS

| Test | Exact deletion reliability | Synonym count reliability | Significance value |
|---|---|---|---|
| IA | .690 | .683 | .16 |
| IIA | .609 | .657 | .96 |
| IIIA | .693 | .721 | .67 |
| IB | .707 | .727 | .34 |
| IIB | .722 | .738 | .41 |
| IIIB | .713 | .727 | .35 |

NOTE: Significance value must exceed 2.58 to be significant at the .01 level of confidence.

All correlations were significant at the .01 level. No significant differences were found between the correlation coefficients. The second null hypothesis of no significant difference in validity coefficients between cloze tests scored by the two methods was thus accepted.

To test for significant differences between the means of the six cloze comprehension tests written with high and low

#2. 178.

frequency patterns of language structure the Scheffé[18] technique was employed. The findings of this analysis for the exact deletion method and synonym count method are found respectively in Table 3 and Table 4.

TABLE 3

ANALYSIS OF SIGNIFICANT DIFFERENCES BETWEEN MEANS OF CLOZE COMPREHENSION TESTS CONTAINING HIGH (A) AND LOW (B) FREQUENCY PATTERNS OF LANGUAGE STRUCTURE, SCORED BY THE EXACT DELETION METHOD

| Test | IA | IIA | IIIA | IB | IIB | IIIB |
|---|---|---|---|---|---|---|
| IA | | (−)4.69* | (−)4.59* | .44 | (−).29 | (−).29 |
| IIA | | | .90 | 4.13* | 3.40* | 3.40* |
| IIIA | | | | 4.03* | 4.30* | 4.30* |
| IB | | | | | .73 | .73* |
| IIB | | | | | | .00 |
| IIIB | | | | | | |

NOTE: A mean difference must exceed 1.51 and 1.29 to be significant at the respective levels of .01* and .05—.*

The exact deletion scoring method resulted in significant discrimination between mean scores on cloze tests written with high (IIA, IIIA) and low (IB, IIB, IIIB) frequency patterns of language structure, with the exception of the cloze test (LA) written with extremely high frequency patterns of language sructure. In this case (IA), the mean score did not differ significantly from the mean scores of the tests (IB, IIB, IIIB) utilizing low frequency patterns of language structure. The third null hypothesis related to the exact deletion scoring method was not accepted, with the exception of the cloze test written with extremely high frequency patterns of language structure.

The synonym count scoring method resulted in significant discrimination between mean scores on the cloze tests written with high (IA, IIA, IIIA) and low (IB, IIB, IIIB) frequency patterns of language structure with one exception. This exception was the mean score for the cloze test written with the lowest of the high frequency patterns (IIIA) and the mean score of the test written with the highest of the low frequency patterns (IB), which did not differ significantly. Thus, the third null hypothesis, related

[18]William L. Hays. *Statistics for Psychologists*, Holt, Rinehart and Winston, New York, 1963, pp. 483-487.

TABLE 4

ANALYSIS OF SIGNIFICANT DIFFERENCES BETWEEN MEANS OF CLOZE COMPREHENSION TESTS CONTAINING HIGH (A) AND LOW (B) FREQUENCY PATTERNS OF LANGUAGE STRUCTURE, SCORED BY THE SYNONYM COUNT METHOD

| Test | IA | IIA | IIIA | IB | IIB | IIIB |
|---|---|---|---|---|---|---|
| IA | | .03 | 1.03 | 2.39* | 2.54* | 2.80* |
| IIA | | | 1.00 | 2.39* | 2.51* | 2.77* |
| IIIA | | | | 1.36 | 1.51—* | 1.77* |
| IB | | | | | .15 | .31 |
| IIB | | | | | | .26 |
| IIIB | | | | | | |

NOTE: A mean difference must exceed 1.67 and 1.43 to be significant at the respective levels of .01* and .05—.*

to the synonym count scoring method, was not accepted, with the latter exception.

In regard to the mean differences between the cloze tests scored by the exact deletion method (Table 3) it might be hypothesized that because a subject is more familiar with an extremely high frequency pattern he is also more familiar with a greater number of alternative response words that could be used in the blank replacing the deleted word. This familiarity with alternative responses might be expected to decrease as the subject's familiarity with the pattern of language structure decreases. As a result, a greater probability would exist in extremely high frequency patterns than in lower frequency patterns that the subject's response would not match the exact word deleted in a reading passage. This would not be expected to occur in the synonym count scoring method because an alternative response indicating the subject is comprehending the material is scored as correct. This hypothesis obtains support from an inspection of significant differences between means on the tests scored by the two methods. As was noted in the exact deletion count presented in Table 3, no significant difference was found between the mean for test IA, written with extremely high frequency patterns, and the means for tests IB, IIB, and IIIB, utilizing low frequency patterns. Mean differences for the synonym count, however, presented in Table 4, revealed a significant difference between the mean of test IA, written with extremely high fre-

[illegible], 179,

quency patterns, and tests IB, IIB, and IIIB, written with low frequency patterns.

It is recognized that cloze comprehension tests will normally be prepared by using reading passages encompassing a wide range of patterns of language structure. However, the interpretation of cloze scores related to the comprehension difficulty of reading passages could be misleading should the above hypothesis be verified and should several of the passages under consideration be heavily weighted with extremely high frequency patterns of language structure. Further research on this problem is needed.

The correlation coefficients, as estimated by the statistic Epsilon, were calculated for (a) the scores on the cloze test tabulated by the exact deletion method and the frequency of occurrence of patterns of language structure used in the reading tests, and (b) the scores on the cloze tests tabulated by the synonym count method and the frequency of occurrence of the patterns of language structure used in the reading tests. The correlations and the calculated confidence intervals for the correlations are reported in Table 5.

TABLE 5

CONFIDENCE INTERVALS FOR CORRELATIONS ESTIMATED BY EPSILON BETWEEN CLOZE COMPREHENSION TEST SCORES FOR THE EXACT DELETION AND SYNONYM COUNT METHODS AND THE FREQUENCY OF OCCURRENCE OF PATTERNS OF LANGUAGE STRUCTURE IN READING TESTS

| | Frequency values in reading passages (Epsilon)² | Epsilon | Confidence intervals |
|---|---|---|---|
| Exact deletion scores | .307 | .554 | .230 — .384 |
| Synonym count scores | .112 | .335 | .050 — .174 |

NOTE: Confidence intervals have been calculated at the .01 level of significance.

The correlation coefficients between the cloze comprehension scores and the frequency of patterns of language structure were .554 and .335 respectively for the exact deletion and synonym count scoring methods. Each of the coefficients was significant at the .01 level of confidence. The coefficients for the two scoring methods were significantly different as indicated by the mutually exclusive ranges for the two confidence intervals. Thus, the fourth null hypothesis was not accepted. This was interpreted to mean that in the exact deletion scoring method the frequency of occurrence of patterns of language structure accounts for a significantly larger per cent of the variance in the comprehension scores than in the synonym count scoring method.

## Conclusions

Within the limitations of this study it was concluded that:

1. The cloze comprehension tests scored by the exact deletion and synonym count scoring methods do not differ significantly in reliability, with the exception of the cloze test utilizing extremely high frequency patterns of language structure. In this exception, a significantly higher reliability coefficient was reported with the synonym count scoring method.

2. The cloze comprehension tests scored by the exact deletion and synonym count scoring methods do not differ significantly in validity as paragraph meaning measures of reading comprehension.

3. The cloze comprehension tests scored by the exact deletion scoring method and the synonym count scoring method discriminate significantly between mean scores on reading passages written with high and low frequency patterns of language structure, with two exceptions. The first involves the exact deletion scoring method, in which the mean of the cloze test written with extremely high frequency patterns of language structure did not differ significantly from the means of the cloze tests written with low frequency patterns of language structure. There is some evidence to suggest that this exception may be due to the subjects' familiarity with alternative responses in extremely high frequency patterns of language structure thereby decreasing the probability that the response words will match the exact words deleted and result in disproportionately lower scores when tabulated by the exact deletion scoring method. The second exception involves the synonym count scoring method, in which the mean for the cloze test written with the lowest of the high frequency patterns did not differ significantly from the mean of the cloze test written with the highest of the low frequency patterns.

[redacted]. 180.

303.

4. The correlation coefficient between the cloze comprehension scores tabulated by the exact deletion method and the frequency of occurrence of patterns of language structure used in the cloze tests differs significantly from the correlation coefficient calculated between the comprehension scores tabulated by the synonym count method and the frequency of occurrence of patterns of language structure. Thus, it was further concluded that in the exact deletion scoring method the frequency of occurrence of patterns of language structure accounts for a significantly larger per cent of the variance in the cloze comprehension scores than in the cloze comprehension scores tabulated by the synonym count scoring method.

62.

Vol.7, 62

# 3. Evaluating Materials for Remedial Instruction

193.

DAVID L. SHEPHERD

One of the first queries of teachers newly assigned the responsibility of teaching a remedial class is "What materials should I use?" These teachers, who often take their new assignment with extreme seriousness and dedication, know full well that much of their success will depend upon having adequate materials in both level and quantity. Of course, they are right—partly. In this earnest query a note of urgency is apparent. Materials and success in remedial instruction seem to assume a synonymous meaning. We know this is not completely true.

When choosing materials for remedial instruction, the teacher often finds that he needs to review his goals of remedial instruction. He needs to crystallize his philosophy — his guideline of effective methodology. Indeed, I have seen remedial classes which were well equipped with materials, but the pupils were indifferent, solemn, and resentful. Reading had no fascination for them. One student said, "We work exercises and all that jazz." When asked what he was learning, his answer was vague. "Oh, we read some paragraphs and answer questions," he said. Another student said of his class, "We read stories and answer questions. We do this on our own. The teacher just sits at his desk and answers questions if we ask 'em." When I leave such classes, I often think of a comment made by a college librarian. She said, "You reading specialists are killing reading."

Then, I have gone into other classes, some well equipped with materials, and others not so well equipped. But, the atmosphere is different. I sit down with the pupils amidst an aura of excitement and enthusiasm. The pupils' facial expressions show complete absorption. They are becoming articulate in the use of words and in discerning the skills. They share



books. In these instances I would like to say to that librarian, "See!"

What makes the difference between a class consumed by the eagerness and anticipation of learning and the other stamped by apathy and indifference? Do materials alone account for this disparity? Does the method of using the materials matter? Is the teacher's view of his role important? As I reviewed examples of successful remediation, several simple and obvious characteristics revealed themselves.

1. The instruction as well as the materials are suited to the child's instructional level. The materials are challenging; he can learn from them, and he can do so successfully. It is in some remedial classes that the pupil first tastes success in learning to read.

2. The instruction and the materials are pinpointed to each pupil's need. His peculiar reading deficiencies are determined by the teacher with the necessary planning to meet them. Such instruction requires material which is specific to the skill. Material which has each selection followed by exercises in the basic skills of word recognition, word meaning and comprehension does not fill the need for specificity. Such may, instead, be a review. Each pupil has a different constellation of reading skill deficiencies. The teacher picks what is appropriate. He does not select material and automatically follow it page by page.

3. The teacher needs to be organized. He needs to know what he must do to help each pupil. This requires a careful and continuous diagnosis. Further, he searches for materials which gives a gradation, a development of the skill which has been determined as a pupil deficiency.

4. The remedial pupil should acquire an understanding of the reading process and the skills involved in it. He should be "let in" on the reasons for his specific activities in the class. The pupil can help himself if he could know what to do, and how to proceed. Insight into his strengths and weaknesses does much to help the pupil to assess his condition and to plan with his teacher. Note that he needs to plan with his teacher, not just to plan alone.

5. Successful remedial classes are ones in which the pupil's personal worth is recognized. The teacher's viewpoint toward pupils, particularly disabled readers, is the matrix here. Also, materials suitable to the pupil's intellectual stage of development contribute. A sixth grader who is asked to begin reading in a pre-primer which is composed of stories about first grade children may well throw up his hands in disgust from the outset.

6. A remedial teacher is an optimist. He is energetic. He knows his material. He believes in the pupils—he knows that they can learn to read. Sometimes remedial pupils in the upper elementary and junior high school grades have become convinced that they cannot read. Pupil success is a necessity from the beginning of his instruction in the remedial group. The pupil likes to see a record of his growth. Materials designed to help the pupil note his growth, which is within the pupil's level of achievement and which lead him to increased levels of competency, supplement the teachers instructional procedure. In fact, they become interwoven.

7. Sound teaching procedures need to be employed. The teacher must know effective ways to teach the skills. Materials should be used which foster the teacher's approach. In fact, this is an important criterion when the teacher is asked to choose materials.

Many other characteristics and considerations may be mentioned that designate the successful from the unsuccessful in remediation. Such items as scheduling so that the classes do not occur during other school activities which are enjoyable to the pupils. The size of the classes, the general attitude of the school (both students and faculty) toward the classes, and the frequency of the classes all contribute to effectiveness. Then, no matter how well supplied with materials or how inviting the materials may be, inept handling of such consideration can be a death knell to the enthusiastic use of and values received from the materials.

In a questionnaire distributed to thirty teachers, information was requested asking them to indicate how they evaluated the remedial material they used. Twenty-five of the thirty thought that the appearance and format of the material was of vital importance. In fact, this was the most often mentioned feature. They emphasized

182.

the need for large black print. Also cited was the value of interesting pictures that are pertinent to the text. The teachers mentioned that pictures should be colorful, up-to-date, appropriate to their intended use, and to the age of the child. Many others wished for wide spacing—a page with a free wide-open look—so that it would not appear overbearing to the pupil.

Twenty-four mentioned the difficulty of the material as a point of concern. They wished for the vocabulary to be of increasing difficulty. Short, simple sentences were a must, according to the teachers. Only one said that the paragraphs should be well organized.

Content was the third characteristic. Twenty-two teachers cited it. They thought that the content should be within the pupil's experience. None said that they thought the pupil's experiences should also be enlarged. They did think, however, that realism in content was important and that it should be about other children of the same age. Humor was mentioned as an important ingredient. None mentioned literary materials nor factual presentations.

Eighteen thought that style was important. Particularly did they mention the role of pupil interest.

Only eight, however, thought that the material should help the pupil gain insight and understanding of the reading process and of what he is doing. Only four mentioned the need for the pupil to see his growth, and the necessity for systematic progress.

Most disheartening was the fact that only two of the thirty teachers said that the use of the materials—that is, its effectiveness—was dependent upon the teacher's philosophy, approach, and purpose. Materials can be mismanaged and misused. The teacher is the key person. The effectiveness of remedial materials depends on the teacher's use of them.

It is not my purpose to disclaim the importance of well constructed remedial materials. We know that the materials should have the characteristics we have implied. Also, we know that the materials should be in abundance. They are tools of instruction. Having the right tool for the right job can contribute to the difference between a job done and one well done.

Along with materials of remediation is the great need for many books. All children should read for pleasure, remedial pupils included. But many interesting books, readily available to stimulate extensive reading, provide practice. They also take reading from the mundane sameness of working on basic skills to the joys and delights that all remedial teachers want their pupils to experience. Then reading is not "killed."

Materials are important to the success of remediation. They are not, however, synonymous to effective instruction. Materials do not automatically mean success. The teacher is the key. The use made of remedial materials determine their effectiveness.

183.

63.



# 5. Increasing Boys' Reading Achievement through Instructional Materials

Jo M. STANCHFIELD
Occidental College

IN 1885, JAMES RUSSELL LOWELL wrote "Reading is the key that enables us to see with the keenest eyes, hear with the finest ears, and listen to the sweetest voices of the ages." We who teach children to read know only too well the truth of this statement. We know also that reading is one of the most complex tasks that man has ever devised for himself.

In this complex task, reading is a golden key because, in essence, it opens the door to endless opportunities. As some of the boys in the research have said, "You can live a thousand lives and do a thousand things if you can read a thousand books." But the key is golden only to the degree that it is usable. Reading is a golden key only when one can learn to read effectively to accomplish a variety of goals and purposes.

Fewer boys than girls, in our society, learn to use reading as a "golden key." The statistics from many schools indicate that boys have more difficulty than girls in learning to read. In fact, large school systems report that, at the upper elementary level, the boys make up 75 per cent to 80 per cent of all reading disability. Enrollment figures from reading clinics show that boys compose over 85 per cent of the students in classes for reading improvement.

## Background of the Research

This problem of the disparity between the reading achievement of boys and girls is not a new one. Ayres was one of the first to call attention to sex differences in school achievement. In his book, *Laggards in Our Schools,* published in 1909, he pointed out that 12.8 per cent more boys than girls repeated grades; that 17.2 per cent more girls than boys completed "common school" (8th grade).

In the decades since Ayres' book was published, there have been numerous studies giving evidence of the differences in the reading achievement of boys and girls. During the 1940's, one of the largest research projects on sex differences in school achievement was conducted by Stroud and Lindquist with 50,000 pupils in more than 300 schools in Iowa. With the Iowa Every-Pupil Basic Skills Test, students in grades three through eight were tested on reading comprehension, vocabulary, word-study skills, basic language skills, and arithmetic skills. The researchers stated that "girls have maintained a consistent and, on the whole, significant superiority over boys in the subjects tested, save arithmetic, where small insignificant differences favor boys *(2)*.

Arthur Gates was one of the first to question whether or not there might be something in the school situation or social setting which militated against the reading success of boys. In 1961, Gates analyzed the reading test scores of 6,646 boys and 6,468 girls in grades two through eight in the New York City schools. The boys and girls were approximately typical in intelligence, scholastic aptitude, and other pertinent factors. The results showed that the scores of the girls were significantly higher than those of the boys at all grade levels. Gates felt that the poorer showing by the boys on the tests indicated an environmental rather than a hereditary explanation. Perhaps more girls than boys experienced life situations in which there were greater opportunities, incentives, and respect for reading. Because of the different role conceptions in our culture, the boys may have failed to be motivated by a feeling of the importance of the reading act. Perhaps, too, boys were less interested in the school routines and materials of instruction than were girls *(1)*.

What, then, are some of the factors that might affect success in beginning reading?

Over the past four years, the writer has been engaged in research with approximately three hundred first-grade children each year in the Los Angeles City Schools. The purpose of the research has been to experiment with a variety of materials and methods in teaching beginning reading to determine the effect upon the reading achievement of both boys and girls.

184.

During the school year, 1964-65, the experimental groups were matched with control groups typical in intelligence, home backgrounds, and ethnic origins. The research design was based on the divided-day structure for teaching reading, in which one-half of the children were given reading instruction between 9:00 and 10:00 in the morning, and the other half between 2:00 and 3:00 in the afternoon. The *Detroit Beginning Primary Test* was used in September to determine an IQ score for each child. The *Harsch and Soberg Survey Test of Primary Reading Development* was given in June to secure reading achievement scores for both the experimental and control groups. The schools in the research covered a broad range of socio-economic levels from middle-class to lower-class populations.

**Basis for the Development of the Research Materials**

In the summer of 1964, a workshop was held with teachers and administrators in the research in order to prepare specific instructional materials geared to the boys' learning characteristics, as noted from the previous research. In 1962, the teachers had taught sex-segregated classes in reading. Although the main effect of this research showed that boys did not learn to read better when separated from the girls, the teachers recognized basic areas of difference in the learning patterns of boys and girls.

First, the teachers emphatically pointed out that boys tended to be much more active physically than girls of the same age—wiggling, twisting, turning, shoving, pushing—whereas the girls were so "quiet, ladylike, and easy to handle." As one teacher put it, "It's so hard for an energetic six-year-old boy to keep himself occupied with reading a book." At the same time, the teachers noted that the boys had less verbal facility than the girls. The boys often spoke in incomplete and fragmentary sentences, having more difficulty in speaking clearly and easily.

Further, the teachers in the research stated that boys did not listen as intently and carefully as girls. Perhaps this lack contributed to the greater difficulty the boys experienced in making auditory discriminations and hearing common phonetic elements. The teachers found the attention span of the boys to average about two-thirds of that of the girls. Several teachers pointed out, however, that boys could pay attention for a long time if they were doing something active and dynamic.

In the area of goals, motivations, and interests, the boys in the study were generally less anxious than the girls to please the teacher, less motivated to develop good work habits, less desirous of assuming responsibility, and less self-motivated in learning to read, perhaps due to the role concept of the boy in the culture. The boys could be enthusiastic, curious, and tenacious in respect to something in which they were interested; but the teachers found it difficult to interest boys in subject matter that did not have the appear of the unusual and the dynamic. This contrasted with the ease with which the teachers of the all-girl groups reported that they could hold the interest of the girls in a variety of subjects.

**The Use of Research Materials**

With this knowledge of the observed learning patterns of boys, the teachers stressed four areas of learning theory in the use of the materials: readiness for reading, motivation and interest, practice and drill, and reinforcement.

*Readiness for Reading.* Because of the previously mentioned difficulties of boys in verbal facility, auditory discrimination, and listening skills, a structured program of pre-reading activities was developed. Flannel-board cut-outs and stories were used to develop specific speech sounds and to involve the children in taking parts of characters, in verbalizing details of stories, and in remembering sequences of events. A variety of puppets, from paper-bag to stick types, was used to free children from tension in oral language and to encourage them to verbalize stories and experiences.

"Phoneme Boxes" with objects representing the initial consonant sounds to be used in the readers were enjoyed by the children. The class manipulated the objects, saying the names of the objects, and learning the letter which corresponded to the initial sound. For example, the "D" box contained such objects

185.

as donkey, dish, doll, duck, dog, etc. Similar boxes were used with rhyming objects, *e.g.*, a little wooden house and a toy rubber mouse, a toy car and a wooden star, a metal bell and a sea shell. Later, the children brought pictures from home to represent the different sounds. Much emphasis was given to teaching the consonant letters and sounds that would be encountered in the pre-primers through rhymes, riddles, and stories.

Daily exercises were employed to teach the children to listen for different sounds and to discriminate among them, *e.g.*, transcriptions of the sounds of trains, trucks, airplanes, etc. Stories and poems were read to the children with specific instructions to listen for answers to questions. The classes were involved in many games and activities which encouraged them to observe, listen, and follow directions, such as "Simon Says" and "Do as I Do."

A highly effective teaching device was that of individual flannel boards and pocket charts which were similar to the large ones used by the teacher. Each child was involved in a listening situation in which he had to make a response with his own small flannel board or pocket chart and then could check with the teacher's answers.

Study prints, devised by an artist to introduce the characters from the readers and to parallel similar activities, enabled the teachers to create interest and understanding of the content of the pre-primers, while at the same time helping the children to develop the vocabulary of the readers in an auditory situation. The study prints, at the reading readiness stage, provided incentives for children to tell stories and to dictate their stories to the teacher. Later, the children used the study prints to write some of their own stories in a reading-through-writing approach.

*Motivation and interest.* It is generally agreed that interest plays a significant role in the motivation of human behavior. Real interest is active and dynamic, a force which motivates an individual to work, to think, and to learn. Specifically in the area of reading, the writer has made a study of boys' reading interests through interviews in depth with two hundred boys. The twelve categories most highly preferred (out of a total of fifty), in order of preference, were outdoor life, explorations and expeditions, sports and games, science fiction, sea adventure, tales of fantasy, historical fiction, humor, everyday life adventure of boys, outer space, mystery and detective stories, and war stories. The least-liked categories included stories about music or art, family and home life, plays, and poetry.

Of a total of twenty characteristics of reading interests, the seven best-liked, in order of preference, were unusual experiences, excitement, suspense, liveliness and action, surprise or unexpectedness, fantastic, fanciful, or weird elements, and funny incidents. The boys showed a consistent and almost identical pattern of least interest and liking for four characteristics or literary qualities: sadness, family love and closeness, cruelty and brutality, and familiar experiences.

Based on these interests, a selection was made of a series of readers about an atomic submarine called the Shark and the exciting adventures of a sailor named Jack, Bluebell the parrot, and a small boy, Eddy, who comes to visit the Shark. The unusual and exciting content of these readers, although not written specifically for teaching beginning reading, proved interesting to both boys and girls. (Many studies of reading interests have shown that girls tend to like what the boys like, in addition to their own special interests.)

*Practice and drill.* This was an area which challenged the most skilled teacher —that of varying the stimulus of the printed word so that even the most reluctant reader was motivated to look, listen, and want to learn. Effective use was made of a variety of colorful word drill activities, first used by the teacher in class with the boys and girls, and later used independently by the children. These aids and activities involved active participation on the part of the group and gave the boys many opportunities for movement and activity. These vocabulary activities included "traveling" games, "build-up-tear-down charts," "spinning" devices, "matching" cards, and "prediction" exercises.

Further variation in the practice of reading the stories was provided by a

transcription for each story in the reading books, with appropriate follow-up practice material. These transcriptions were used in a "listening-post" situation, with individual earphones for each child, to give opportunity for rereading the stories in the reader as an independent activity.

Color slides were made as actual reproductions of pages in the reading texts. These slides were flashed on a screen by the teacher in a directed reading lesson and later used independently by the children, to give practice in the basic words in the readers and to vary the stimulus of the printed word.

Drill on the basic vocabulary of the readers was further varied by having the children write individual and original stories about their favorite characters. The children illustrated their stories, which were then made into a book to be read and re-read. Individual and group stories were dictated to the teacher who sometimes wrote them on a typewriter and at other times placed them in manuscript lettering on a large chart. In both instances, the children were encouraged to read the stories in their "free" time. The children also used the study prints as a basis for a new, imaginative story.

*Reinforcement.* Perhaps the greatest reinforcer in the research was the warm, friendly smile of the teacher, with a sincere word of praise and help. During the discussions at the research meetings, the teachers evidenced an acute awareness of the power to reinforce learning through affection, acceptance, and approval. Teachers tried to make the reading period a time of interest, excitement, and fun.

Daily follow-up work or practice material was given to the children to do independently after the directed reading lesson. This material emphasized the vocabulary and the reading skill the teacher had taught. When the work was corrected and the child could see that he had learned the "words," these daily materials acted as reinforcement for further learning. When a boy or girl could read a story on his own and enjoy it, he had achieved a high level of intrinsic reinforcement.

Use was also made of extrinsic reinforcement. Vocabulary tests were given regularly after two or three stories had been read. To show his achievement record in graphic form, each child painted a harbor, with a pier and, many times, with a picture of himself standing on the pier. After each test, he received a number of small submarines to paste on his harbor, according to the number of correct words. A sliding scale of the number of submarines was used so that every child could feel some success. A child who did not know the words on the test and failed to get even one submarine was given extra help and encouraged to take the words home to study so that he might take the test again at a later date and still get the coveted sub.

## Results of the Research

Table 1 represents the means and standard deviations of the experimental control groups separated by sex. Means and standard deviations are computed for the sum of subtests 1, 2, and 3 and repeated for total reading test, *i.e.*, subtests one through six.

It can be noted that in all cases the mean of the experimental groups is higher than that of the comparable control groups. The differences for the first three subtests are more than 7 points for the

TABLE I.

MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL, AND BOYS AND GIRLS ON POST-TEST TOTAL AND SUBTESTS 1, 2 AND 3 OF THE H-S

| | Subtests 1, 2, 3 | | | Reading Total | |
|---|---|---|---|---|---|
| | N | Mean | σ | Mean | σ |
| Ex. Boys | 39 | 37.67 | 5.20 | 58.79 | 12.18 |
| Ex. Girls | 47 | 36.34 | 6.46 | 54.45 | 13.67 |
| Control Boys | 38 | 30.37 | 6.76 | 41.47 | 12.04 |
| Control Girls | 48 | 30.73 | 7.81 | 42.02 | 12.27 |
| Total | 172 | 33.76 | 7.37 | 49.10 | 14.57 |

187.

TABLE II.
SUM OF SUBTESTS 1, 2, 3

| | Adjusted Sums of Squares | df | Adjusted Mean Square | F |
|---|---|---|---|---|
| Sex | 2.66406 | 1 | 2.66406 | .077 |
| Experimental Control | 1734.71289 | 1 | 1734.71289 | 50.259 |
| Interaction | 11.77734 | 1 | 11.77734 | .340 |
| Error | 5777.04102 | 167 | 34.59306 | |

TABLE III.
TOTAL SCORE

| | Adjusted Sums of Squares | df | Adjusted Mean Square | F |
|---|---|---|---|---|
| Sex | 98.07813 | 1 | 98.07813 | .744 |
| Experimental Control | 9266.98828 | 1 | 9266.98828 | 70.259 |
| Interaction | 1.35938 | 1 | 1.35938 | .010 |
| Error | 22026.78125 | 167 | 131.89689 | |

boys and about 6 points for the girls. On the total test scores the experimental boys exceed the control boys by more than 17 points. This difference for the girls is better than 12 points.

Tables 2 and 3 show the tests for significance of these means by an analysis of co-variance. The co-varient in both cases is intelligence test scores. The only significant F is that between the experimental and control groups. In each case the mean score for the experimental group exceeds that on the control group significantly with the effect of intelligence partialed out. Besides the significant result of indicating the treatment was more successful in teaching reading to those children, an equally startling result is that the mean difference in reading scores for boys and girls was not significant. The mean for the experimental boys was slightly higher than that of the girls, although not significantly so.

This research has shown that materials and methods of instruction described in this study, and used with groups of children in the Los Angeles City Schools, enabled these children to read more effectively than those in the control groups. The teachers with the experimental groups spent a great deal of effort and energy in using the research materials. Lest any teacher become weary of putting forth his best effort to help children learn to read, let him remember the words of Emily Dickinson who wrote about a child in the slums of a large city who had learned to read well enough so that he loved books:

*He ate and drank the precious words,*
*His spirit grew robust;*
*He knew no more that he was poor,*
*Nor that his frame was dust.*
*He danced along the dingy ways,*
*And this bequest of wings*
*Was but a book. What liberty*
*A loosened spirit brings.*

REFERENCES

1. Gates, Arthur J. "Sex Differences in Reading Ability," *Elementary School Journal*, 61:431-4, May, 1961.
2. Stroud, J. B., and Lindquist, E. F. "Sex Differences in Achievement in the Elementary and Secondary Schools," *Journal of Educational Psychology*, XXXIII, 1942, 657-67.

188.

64.

Vol. 9, 64

## 3. Using the Basal Reader as a Springboard to Library Reading

197.

DONALD URQUHART



FROM AT LEAST Grade IV upwards one of the simple ways for a teacher to evaluate his reading program is to answer the question: "How much extra reading does the program stimulate?"

The main responsibility of a reading teacher, surely, is to encourage each of his pupils to become an individual who turns freely and with zest to books and to the libraries that contain them. It is surprisingly simple to lose sight of this goal in an attempt to produce mechanically efficient readers.

The various methods used to implement a developmental reading approach form a continuum. At one end is the exclusive adherence to a basal reader for each reading group coupled with great dependence upon the accompanying teacher's guides.

The other extreme is represented by the use of different books for each pupil from which individualized programs are constructed by the teacher. Somewhere between these two opposites it is possible to combine the best of both worlds. A teacher can retain the security provided by group instruction with first-rate basal readers and, at the same time, can handle these materials in such a way that the flexibility of a semi-individualized reading program results.

How is this achieved? Quite simply, when a selection from a basal reader is used for a directed reading activity, then it is in the follow-up stages that the individual use of library books becomes an integral part of the program.

In this constantly-repeated moving out from basal readers to library books, four points must be kept in mind:

1. Every directed reading activity connected with basal material should include a planning session in which each pupil evolves an individual study project or some form of recreational reading dealing with interests aroused by the basal selection.
2. Maximum use should be made of the close liaison that must exist between reading teacher and librarian. Librarians have a right to know as much as possible about the pupils and their current areas of interest in order to provide the most appropriate materials. Teachers are justified in expecting fullest provision of the library books as part of the cooperation from librarians essential to any reading program.
3. The teacher must arrange his schedule so that time is provided for pupils to use their library books in the classroom setting.
4. The use of library books as a formal part of the reading program must be further emphasized by follow-up in the nature of reports. These reports are prepared and delivered by the pupils on a regular basis to the members of their reading group or to the whole class. The preparation of a report necessitates a clarification of the reporter's ideas. The delivery especially involves the skills of communication and listening. There are two main types of reports: (1) in the case of study projects, written and/or oral reports, (2) with recreational reading, oral book reports.

Many teachers feel inadequately trained for the teaching of reading. This continual use of the basal reader as a springboard to library books represents a realistic compromise between the potentially sterile rigidity of complete dependence upon basal material and the possible anarchy of a totally individualized program.

189.

65.



Vol 9, 64

## 3. What Measures Stand the Test of Time?

94.

ELIZABETH GRAY VINING

WHEN I first began to write books for children, nearly forty years ago, only three or four publishing houses had special departments for junior books. It was May Massee, I think, who, disliking the word *juvenile,* invented the term *junior books.* She was my editor and one of the three pioneers in this new field; the other two were Louise Seaman and Helen Dean Fish, all three brilliant, original women, dedicated heart and soul to the cause of publishing books of quality and beauty, "distinguished books," and of getting them to the children.

Now the whole scene has changed. I would not venture even to guess how many houses publish children's books or how many thousands of books they put out each year. There are still, of course, editors with the same passion for excellence; books of distinction are still being published—and more of them than there were forty years ago—but it is harder to find them among the piles and piles of bright, gay, but too often commonplace volumes that come pouring from the presses in such bewildering numbers. Some will live, going on in edition after edition to delight coming generations of children, but more of them will fall into oblivion like last year's leaves. Some of real merit will drift out of memory just because through some ill luck they have not managed to attract the attention of enough peope who recognize them for what they are. It is a good thing, I think, for those of us who really care about children's reading — teachers, librarians, book-sellers, editors, writers — when we get together, to pause and ask ourselves again what it is we want to find in the books we select for our children to read, what are the qualities that make some books live and others wither and dissolve under the pressure of time.

I am going to suggest tentatively some of the reasons why I think certain books have survived and why we should look for the qualities they embody in the books we choose out of the new books each year. I have chosen a score of books published between 1864 and 1944 from which to draw examples. I might have chosen many others equally good, but these will do, for they are varied: adventure stories, modern fairy tales, stories of home and character, animal stories, historical tales, stories of other lands. They are all intended for that wide, not too closely defined, middle group of children, too old for picture books, not yet ready for teen-age novels. They illustrate the points I want to make. I selected 1944 as the stopping point, for that gives the newest of them twenty years of survival already and four generations of the eight-to-thirteen-year-olds have liked them and passed them on. I chose 1864 as the starting point, both because it is just a century ago and because it was the year in which a revolutionary book was published.

Before 1864 children's books had an ax to grind, a moral ax. They were intended to instruct and to instill moral virtues. Maria Edgeworth's Tales, which were among the best of them and included in spite of everything some good stories, were published under the title, *The Parent's Assistant,* with a preface in which the author explained that—for a reason incredible today—she had divided her stories into two parts "as they were designed for different classes of children." Not good readers and poor readers, mind you, but actually different ranks of society who have, she said, "few ideas, few habits in common." Though truth, justice, and humanity were, she considered, confined to no particular rank, other virtues such as industry, frugality, generosity,

190.

prudence, were parcelled out to those who needed them most. But in 1864 there appeared a book intended only to please children—*Alice's Adventures in Wonderland*.

Some reviewers cried out against it in horror, saying that no child would ever read such stuff, but Lewis Carroll knew before it was published that children would take it to their hearts. He had tried it not only upon the three little girls for whom it was first written, but he had also taken it with him when he visited his friend George Macdonald and had read it to Macdonald's six-year-old son, Greville, who exclaimed that "there ought to be sixty thousand volumes of it." Seventeen different publishers today have more than seventeen different editions of *Alice* on the market, and in the century of its life it has been read by millions of children in who can say how many different languages. Undoubtedly part of its magic comes from the fact that the author so thoroughly enjoyed the writing of it himself. And that brings me to the first point that I should like to make about the essential elements in the books that live—the sincerity of the writer.

The sincerity of the writer seems to me the basic, the essential element lacking which he had better not even dip his pen in the ink. I wish there were another word than sincerity to express what I mean; I do not mean veracity—that is also necessary but it is something else. I mean that there is nothing feigned or pretended in his attitude toward the child for whom he writes or toward the book that he writes. It is a cliché to say that we should never "write down" to children, but what do we mean by that? We mean that we should never pretend that we stand on some higher plane than they do, from which height we condescend to instruct or entertain them. True, we are older than they are, more experienced, better informed, but in these doubtful advantages they will catch up with us soon enough, if not overtake us. On the other hand, they have still their innocence of eye, that priceless gift of seeing the world freshly without preconceived ideas which we, unless we are poets, have long since lost. They have still the shining sense of wonder that they brought with them from wherever they came; ours, unless we are saints, is badly tarnished. They have still an uncalculating and terrifying honesty which we, unless we are of a rare variety of madman, have long since sacrificed to getting along with people and making our way in the world. All of these glorious endowments, which we—most of us—have lost, they have. They too—most of them—will lose them, but they have them now. It behooves us to approach our child readers with respect.

As, to do us justice, most of us do. Any of the books which I am thinking about would illustrate my point, but perhaps Arthur Ransome's *Swallows and Amazons* (1931) is a good one to take. The children in the story—as I am sure you remember—are camping on an island in one of the English lakes, with their sailboat, and playing at being explorers. Their adventures, both real and imaginary, are told as *they* see them, and their acceptance of the fact that it is a game even while they pursue it with wholehearted seriousness and their shifts as necessity dictates from regarding the adult on the mainland now as mother and now as "the female native" could be conveyed without condescension only by a writer who thoroughly understood that children, to themselves, never feel young (as adults, to themselves, seldom feel old) and who was never in any slightest degree guilty of exchanging, so to speak, a knowing glance with other adults over their heads as he wrote.

Or take George Macdonald's *At the Back of the North Wind* (1871) which speaks directly to the child's sense of wonder. Adults may feel compelled to speculate and argue about what he means by the land at the back of the North Wind—Fairyland? death?—but Macdonald does not need to explain to children; they are caught up with Diamond, cradled and secure in the nest of the North Wind's hair and carried off to an experience that they accept—and feed on—without question.

The author's sincerity towards his audience includes also his sincerity in regard to his work; he should respect it as he respects his readers. Does he write, is the crucial question, because he has some-

191.

thing he wants to say, or because he would like to make some money, or to get himself a toe-hold in the writing world? A great many mediocre books that are doomed to disappear are written not by unskilled beginners doing their best but by competent scribblers who toss off something easy thinking that anything is good enough for children and wanting to get in on a good market. People are sometimes ashamed of writing for children, as if it were a second-grade sort of writing, as easy as it looks, and they cover their shame by an assumed superiority that eats like a worm at the very heart of their work. Or does the author write because some editor has asked him to do a book on a particular subject? Does he say what he has to say in whatever time it takes him or does he cut it to a prescribed length, as if he were cutting so many yards of cloth?

There are exceptions to every rule and one outstanding exception to this pronouncement about editor-ordered books of a prescribed length is Selma Lagerlof's *The Wonderful Adventures of Nils* (1907). The great Swedish novelist, winner of the Nobel Prize, was asked by the National Teachers Association to write a geographical reader on Sweden. What might have been a perfunctory job became, in the hands of a very gifted writer who respected both her work and her readers, a living masterpiece.

Caroline Dale Snedeker, whose *Theras and His Town* (1923) is still bringing ancient Athens to life for children, did not even, she told me once, consciously write for children. "I have a book to write," she said, "and I write it the best I can—and it turns out to be a book for children." She was a wonderfully gentle, quiet person with glowing eyes, an inspiring person, with her sympathy and her vision, for a young writer, as I was then, to meet.

Closely bound up with what I have called the writer's sincerity is his feeling about truth. He should have a passion for truth, truth of fact, of place, of character, truth of imagination. If a story is to be laid in a particular time or a particular country he must make as much effort to draw an accurate picture of that time or country as he would if he were writing for a scholarly journal. He will, it is true, have to discard much of what he learns, will have to select with the greatest care the significant and illuminating detail, will have to assimilate his knowledge so that it is part of the fabric of the story and not a hard crust on the top of it, but he must not stint his research just because it is a book for children and they'll never know the difference.

The most wonderful historical book for children remains *Puck of Pook's Hill* (1906). It is original and perhaps unique in the way it combines historical fact with fantasy; through the magic of oak, ash, and thorn Puck himself appears to two English children in a meadow and brings before them living figures from history to tell about their lives in a series of stories that not only make vivid different periods of English history but present the whole unified sweep of it to a child's understanding.

Another book that gives us something of the sweep of history, in another land, is Cornelia Meig's *Master Simon's Garden* (1916) in which through three generations we see the flowering of the ideas of tolerance and freedom.

Or consider Mary Mapes Dodge's *Hans Brinker, or The Silver Skates*, now, it is hard to believe, ninety-nine years old and still available in editions by six different publishers. She was writing of a foreign country and she wrote with such vividness and such accuracy—and told so well her story, for we must never forget the story—that her Holland is not a period piece but a colorful and beloved land to today's children and so authentic that the Dutch people themselves have declared it to be the best picture of their country.

Then there is the matter of truth to imagination. Take Kenneth Grahame's *The Wind in the Willows*. It is an animal story of a kind imitated by generations of sentimentalists who make their cute animals walk and talk and think they are writing the kind of book that Kenneth Grahame wrote. But Kenneth Grahame's animals are real animals—and sometimes they are real people at the same time—because of the unwavering truth of his imagination.

Of his book Grahame wrote, "As for animals I wrote about the most familiar

192.

and domestic in *The Wind in the Willows* because I felt a duty to them as a friend. Every animal, by instinct, lives according to his nature. Thereby he lives wisely and betters the tradition of mankind. No animal is ever tempted to belie his nature. Every animal is honest, every animal is straightforward. Every animal is true."

I think next of the quality of *life* in stories, of the writer's ability to make his characters live as real people, who move and make mistakes and love and repent and laugh, people whom we know, people who become our friends.

All the March family in *Little Women* live, but especially Jo, inky-fingered, impulsive, human, lovable Jo; so that after ninety-seven years the book is published by fourteen different publishers in this country and in other countries girls grow up thinking that all American children share their Christmas breakfast with their poor neighbors. *Rebecca of Sunnybrook Farm* (1902) still cherishes her parasol, "the dearest thing in life to me but a dreadful care," sturdy, unfalteringly herself, a lover of life, a living child. And *Heidi* (published in the U. S. in 1884) lives on in her Swiss mountains, sleeping on her sweet-smelling hay and eating the toasted goat's-milk cheese that tastes better than almost any other food in literature. The two self-centered and neurotic but completely real children in *The Secret Garden* (1909), just out in a new and glamorous edition, who find health and joy through finding something to love and cherish continue to hold us in spite of our more realistic approach today to manor houses and moors and gardens. In Kate Seredy's *The Good Master* (1935) two children, Kate and Jancsi, as opposite as possible to Mary and Colin, healthy and wild and joyous, thrive on the Hungarian farm of Kate Seredy's own childhood.

I think next of the actual writing of the book and the skill and beauty with which it is done. In the February *Ladies Home Journal* Rumer Godden has an article, "Words Make the Book," in which she pleads for books written freely by the writers, unhampered by any sort of word list or, to use the popular euphemism, "limited vocabulary." "Given the chance," she says, "children glory in words." They are sensitive to shades of meaning in words, they like the rhythm of polysyllabic words when they are well used. With this I am in hearty agreement as I am sure most other writers are. I would add that the writer for children, though like William Penn he does not seek "fine words and chiming expressions," must be free to use the most vivid, the most exact, the most appropriate words he can find to embody the meaning of his story; and if his thought is clear I am certain that children will be able to guess the meaning of a colorful new word from the context—and the guessing itself is a stretching, as good for his mental muscles as arm and leg exercises are for his physical ones.

Since I have been in Japan and taught children who were beginning to study English and whose vocabulary was therefore far behind their interests, I have had more understanding of the desire of the teacher for books of mature interest and simple vocabulary for the slow readers. What I did find, however, in my work in Japan was that it is not the unfamiliar word used exactly and consistently that makes the trouble; it is the word used vaguely or incorrectly, the sentence construction that is muddled, the thought is not clear to begin with and therefore is confused in its expression, that really is difficult for the struggling reader to understand.

I think too that the highest magic of words is to use the ordinary ones in a fresh way, so that they make us catch our breath. Shakespeare did it incomparably. "Golden lads and lasses must like chimney sweepers come to dust." "Finish, good lady; the bright day is done And we are for the dark." But you find it in children's books too. Listen to this from *The Wind in the Willows:* "The dusk advanced on him steadily, rapidly, gathering in behind and before; and the light seemed to be draining away like flood water." Or this from Robert Lawson's *Rabbit Hill* (1944):

> The great day dawned and the moving vans came. They creaked, swayed and rumbled up the driveway, their drivers completely unaware that they were being watched by dozens of small bright eyes. In bayberry clumps, in thickets and long grass,

193.

> all the Little Animals were gathered to inspect the new arrivals.

Or this from *Hitty* (1930):

> It was during this time that I came to know monkeys and their ways as I never should have come to know them otherwise. At first it made me very uneasy to have them clambering about in the branches all round me, with their crazy chatterings and their lean and supple tails. They had a way of coming close and staring me almost out of countenance and some of the bolder ones even poked me with their skinny paws. Their fingers were thin and inquisitive and they used them for all the world like human beings.

Now whether *clambering* and *inquisitive* are on the word lists or not, I don't know, but I am sure that any child could guess their meaning from the context, and I know that he would feel the touch of the monkeys—and feel too, though it is nowhere said, the smallness of Hitty in comparison to the monkeys. Of the use of words, Rachel Field herself said, "I felt from the first that Hitty would have had a very prim but spicy way of talking and so I tried to select every word and phrase carefully, for I think people don't give words half enough credit. Yet they are what really affect readers, children most of all because they are the most impressionable."

Helen Dean Fish wrote of Hugh Lofting that he "believed that a good story should be good for a reader of any age; that it was his job as author to write so simply and entertainingly that a child could understand all he had to say, even when meeting unfamiliar words and expressions."

And last of all, I think we must look at the books we give our children to see what, when the book is finished, is the residue left in the child's mind. Morals, explicit and labored, have very properly gone out of style. We no longer, to quote somebody wittier than I, sell our souls for a pot of message. But there is something else, which I have called a residue, which is not a moral, nor a message, but a feeling about life that the reader can take with him and make his own. There is no place in children's books for a defeatest attitude, a hint that people are not to be trusted, or an irony beyond their comprehension. That life is good should be the underlying burden of all our books for children, but there are other things too that the author leaves with them. *The Hundred Dresses,* by Eleanor Estes (1944), for instance, nowhere preaches; it tells a story, simply, subtly, unforgettably. The little girl, Maddie, who teased and laughed at Wanda Petronski from Boggins Hill not because she wanted to but because the others were doing it, comes to see that she has hurt herself even more than she has hurt Wanda, but the point is nowhere labored. The story is told, and all of us who have ever stood by and said nothing when wrong was being done know that the story is about us.

We do not need the title of Armstrong Perry's *Call It Courage* (1944) to know what the book is about. It is not because of its title, but because of its sensitive and perceptive understanding of the boy who was considered a coward and the authentic portrayal of the dangers and beauties of the world into which he went to find himself, that we come away with the conviction that courage is not an endowment but something to be won. Readers of *The Story of Dr. Dolittle* (1920) and the other books that followed will take delight in the little round doctor with the top hat, perhaps without even knowing that what they are seeing is the Golden Rule in action; but they will have assimilated it nonetheless. Elizabeth Coatsworth's beautiful *The Cat That Went to Heaven* (1931) brings, besides its recreation of the stories about the Buddha and the atmosphere of the East, a warm sense of gentleness and of compassion.

I have said almost nothing about the story itself, and that of course is what all else hangs on. The story must move, it must catch and hold our interest—but it is easy enough to find out about the story. All the book-reviews tell us that, summing it up faithfully—and often facilely—and reducing it to its outlines. Almost none of the book reviews, except for the very unusual ones, tell us anything about these other important, though not so immediately visible, elements that I have been talking about: the writer's sincerity, his devotion to truth, the sense of life that he creates, the beauty and skill of his writing, the residue of affirmation that he leaves with the reader. These are the things we must look for ourselves.

194.

66.

## 5. Administrators, Supervisors, and Consultants

### a. A Look at the Road Ahead

55. A. STERL ARTLEY

Obviously in the short period of time this morning a look at the road ahead will not permit the exploration of sideroads or bypaths. I shall try, then, to pick out one of the currently well-traveled highways and give you my impression of what lies ahead, or possibly, my judgment of the way the road should turn. Much of what I shall say is only an extension of one of the changing concepts to which Dr. McCullough referred in her paper, namely, that having to do with approaches to reading instruction.

One of the issues to which a great deal of the current literature is devoted is individualized or self-selection reading. Certainly this is an issue about which many supervisors and administrators are raising questions. "Is this the instructional procedure that we should adopt in our schools?" they ask. "Is individualized

[4]William S. Gray and Bernice Rogers, *Maturity in Reading*, Chicago: University of Chicago Press, 1956.



reading antagonistic to a plan using group procedures?"

First, I would like to point out that there is not a single reading person in the country who would argue the fact that a reading program should make provision for individual growth—that it should be differentiated to their individual learning rates, and their special needs. From the time of the publication of the first yearbook of the National Society for the Study of Education having to do with reading, to the most recent one, this has been a problem that reading authorities have faced. Where then, is the problem? Why all the controversy?

Essentially, the issue is whether individualized reading is *the* method of teaching reading or whether it may be incorporated as *a* technique, along with others as needs indicate, in a broad pattern of reading instruction. One of the leading proponents of individualized reading voices the opinion that individualized reading and a group approach using basal materials are in sharp contrast in philosophy, types of materials used, and in the nature of the pupil-teacher interaction. So sharp is the contrast, in fact, that these two approaches have little relationship. Another contends that individualized reading should not be considered synonymous with library, extensive, or recreational reading, types of reading widely used by many teachers as an adjunct to their basal program. Rather, it must be considered a distinct approach to reading instruction that depends on the child's free selection of a book he wishes to read in relation to his current interest, from which instruction in the competencies is provided on an individual basis as need for a given skill arises. In theory, at least, there are no shades of gray between the black and white of individualized reading and a program using basal materials with group instruction. One must be committed to either one program or the other.

Unfortunately, extreme points of view in philosophy and method are not new or even unique to education. Within the professional lifetime of most of us we have witnessed the extremes of phonics vs. sight words, silent vs. oral reading, experience vs. teacher directed approach. At the time, each of the extremes was vigorously defended, but eventually the best of each was combined into an instructional pattern more effective than either used solely.

A guide to the direction ahead in this controversy, it seems to me, may be found in a well-written article by John Bartky.[1] Bartky discusses our propensity to alternate between opposing educational beliefs and practices, and the difficulties encountered by the uncritical acceptance of an innovation. He writes:

> My generation has seen a complete swing from the authoritarian directive role for the teacher to the laissez-faire role, plus a partial swing back to the permissive approach . . . It is my thesis that such alternatives are essentially reflections of fashions in philosophy and that *the true role of the teacher must be determined by the situation in which he finds himself*—that it may be directive, permissive, or laissez-faire depending on the variables involved in that situation. (italics mine)

Reading, as Dr. McCullough has pointed out, is a complex process, and no one philosophy, approach, method, or procedure will prove adequate to all situations. A perceptive teacher will adapt and utilize as the situation requires that which is useful, necessary, and, of course, psychologically sound. Certainly, this would imply the use of group procedures, using as a point of departure a basal program of materials, because of the need for a sequential program of skill development as well as the need to react to the ideas of others who have read the same content. At the same time, the teacher certainly would want to give the children who are interested in the unit theme being developed an opportunity to extend their interests by reading widely in other materials, including other readers as well as trade books and magazines. Other children, singly or in small groups, may wish to carry on investigative projects and reports as they relate to the stories read. Still others, will need individual help on their particular problems. *The end result is a program that uses the best features of both group and individual reading.* The method employed, has been determined by the needs of the situation as Bartky

[1]John Bartky, "The Nature of Teaching Method," *The Elementary School* Journal, 58:199-203, Jan. 1958.

195.

suggests. The teacher has not been forced to commit herself to either a group or an individual approach, because she has found features of both necessary. He has used an eclectic approach, if you will.

### Need for an Eclectic Approach

The need for an eclectic approach to reading instruction has been stressed by a number of leaders in the profession. Gray, Betts, Witty, Bond, Gates and others have consistently pointed out the fact that a sound approach to reading instruction utilizes the best features of both individual and group procedures. Gates[2] summarizes this idea well in these words:

> An open-minded survey of research and of experience of teachers who have used basal reading programs and the better types of "individualized reading" procedures will enable one to see that the best teaching will combine the good features of both methods. The best work with basal books embodies individualized teaching, and the best "individualized teaching" includes whole class and subgroup activities and the use of materials taken from, or identical in principle with, basal readers and workbooks . . . We must undertake to discern the good features of each and attempt to embody them into what should be a better system than either.

Not only do the opinions of respected authorities stress the need for an eclectic approach to reading instruction, but, research, as well, indicates the same idea. Possibly one of the most carefully executed studies dealing with the relative merits of individual and group procedures is that reported by Sartain.[3] Five of ten classes of second graders were taught for an extended period of time by means of an individualized approach, while like groups were taught by a program of voluntary reading. At the end of the experimental program the teachers who had taught individualized reading changed to the basal program and vice versa.

After an evaluation of the data derived from standardized tests and teacher judgments, Sartain concluded that the individualized approach was not superior to a strong basal program. Capable students, he found, made approximately the same gains under both methods. But because of the efficiency of materials for systematic growth, he recommeded that both basal and supplementary materials should be retained for the capable as well as the slower pupils.

Sartain also found that one of the strong features of the individual program was the teacher-pupil conference which developed a strong personal relationship between teacher and child. Consequently, he recommended the incorporation of this feature into the basal program. He suggested, too, that the pupils in the top reading groups may be able to acquire the competencies of reading through basal materials used in the morning reading with individualized reading used in the afternoon. Hence, from this carefully executed study we have the basic recommendation that certain features of the individualized approach should be incorporated into the structure of a basal reading program.

Stauffer,[4] in discussing individualized and group type directed reading instruction, emphasized the need to specify the conditions under which both types of programs may operate so that one will complement the other rather than contradict. It would certainly make sense to follow this suggestion in future research rather than to attempt to "prove" which of the two approaches is superior.

### Clues for Action

Though research has not spelled out for us the types of reading growth each procedure best promotes, a careful analysis of the reading process and an understanding of child development will give us clues for immediate action. In fact, in many cases research will only confirm what our judgment indicates to be true.

Certainly group basal instruction provides through a carefully designed program a series of planned learning experiences in various aspects of reading. These experiences are arranged in such a manner that each builds on previous learnings and goes beyond to develop higher levels of skills, broader interests, and deeper understandings.

---

[2]Arthur I. Gates, "Improvements in Reading in the Near Future," The Reading Teacher, 12:83-88, December, 1958.

[3]Harry Sartain, "The Roseville Experiment with Individualized Reading," *The Reading Teacher*, 13:277-281, April 1960.

[4]Russell Stauffer, "Individualized and Group Type Directed Reading Instruction," *Elementary English*, 37:375-382, October, 1960.

1960.

Group instruction also provides an opportunity for interaction and reaction over materials that the group has read as a common activity. This feature is particularly significant as one goes beyond the skills side of reading and shows concern with changes in attitudes and behavior.

On the other hand, individual or voluntary reading has certain desirable features. It makes possible the application of skills on an independent basis. It capitalizes on personal motives and interests to lead the child to broader and more intensive fields of interests. Especially, it gives the teacher an opportunity to study functionally a child's reading needs and to provide individual help if such is needed.

Possibly one of the most significant contributions of individualized reading is the opportunity it provides for close teacher-pupil interaction, a feature referred to earlier in this paper by Sartain. Through conferences the pupil and teacher come to know each other as persons, and to establish an understanding and a feeling of rapport, features that are coming to be recognized more and more as conducive to school learning.

The above are only suggestive of the contributions of each approach to reading instruction. Enough is suggested, however, to indicate that group basal and individual reading procedures need not be considered antagonistic to each other. Within the broad context of the former, which gives the guide lines for a systematic, sequential program, one can and should incorporate opportunities for the child to select from a wide variety of materials those things that meet his particular fancy. The teacher, as time permits, will want to discuss these materials with the pupils so as to capitalize on the values of pupil-teacher rapport. Moreover, she will want to use all kinds of opportunities, group and individual, to diagnose needs and to provide individual and small group help as needed.

In conclusion, there would seem to be no valid reason for thinking that one must make a choice between the two procedures that we have discussed. Rather the wise procedure would be to combine the best features of each into a pattern that more adequately serves the needs of the learner. At times this will involve group procedures; at other times, individual. In Bartky's words, ". . . the true role of the teacher must be determined by the situation in which he finds himself."

197.

67.

# SEQUENCE X THE ROLE OF THE LIBRARY IN THE READING PROGRAM

## A. ELEMENTARY SCHOOL

### 1. Selection of Reading Material for an Individualized Reading Program

WALTER B. BARBE

THE SELECTION of material for any reading program is a major factor in the success of the program. Although one essential characteristic of the individualized reading program is "self-selection," the fact remains that there are many stages of selection before the student himself is given free choice. The teacher and librarian must be even more concerned with the reading materials which are made available for students to select in the individualized program than in the basal program. Perhaps the major reason they must use more care is that students will read both greater numbers of books and a greater variety.

It is important that we examine both the need for and a definition of individualized reading. The argument could well be made that there is no need for a shift away from basal teaching of reading, for children are reading better today than ever before. The only answer could be that while it is true that children are reading better than in years past, there is still room for improvement. Particularly in the area of developing permanent interest in reading is there need for still more effort.

The current impetus in education, the logical outgrowth of many years of concern for individual differences, is the development of individualized programs of reading. The proponents of the developmental reading approach have advocated for years an interest approach to the teaching of reading. The classroom teacher who centers her teaching of reading around the materials which the students have selected themselves, and in which the children are allowed to progress at their own rate, is participating in the developmental reading program at its highest level.

There is no reason to believe that individualized reading means the end of the basal reader approach. The two programs may be compatible. When an individualized program is recognized as an essential part of the total reading program, providing children with the type of program which best meets their needs, then it becomes only another approach to teaching reading upon which the resourceful teacher may rely. Individualized reading is only one approach. It is no panacea, nor can it be recommended as the best procedure for every classroom.

#### Selection of Materials

Availability of reading materials is a major essential in the individualized program. As part of the individualized reading program, the classroom library becomes the most important place in the room. This library differs from the central school library in a number of ways. Although some teachers continue to insist that children check books out of the classroom library, others have found that the classroom library should be used much as one's own home library is used. Although each child always has a book from the classroom library, keeping track of the material is not so difficult as it might at first appear. The classroom library supplements the school library, and in no manner replaces the need for the central library. In actuality, the classroom teacher will be more dependent upon a trained librarian within the school than ever before.

The materials which are available in





the classroom library must not remain the same. It is likely that there will be a certain number of books in each classroom which remain forever in the classroom library. For the most part, however, the materials are ones which are rotating among classes within the school, are checked out of the central library to the classroom library, are from the central library or bookmobile, or belong to the children themselves and are on loan to the classroom library.

Those people working in individualized reading programs generally recommend that at all times there be approximately 100 books within the room. Less than one-half, but usually more than one-quarter, are books which are in the permanent room collection. The remaining books are ones which are constantly changing.

The books must be on a wide variety of subjects and on a variety of reading levels. Books must be available for children reading below and above grade level. Surprising to some teachers is the fact that in such a program children quickly lose their consciousness of the grade level of the material and are directed more by interest level than by any other single factor. The extent to which the children learn to love reading is directly indicated by their increased use of central school libraries and city libraries and their purchase of books for themselves. Rather than replacing the need for other materials, the classroom library, as it is used in the individualized reading program, increases students' appreciation for books and their use of books from other sources.

#### Conclusions

Individualized reading programs are becoming more popular throughout the country as a direct reflection of the concern for providing for individual differences in the reading program. As the highest level in the developmental program, breaking the lockstep approach too frequently found when basal readers are rigidly followed, the individualized approach allows students to progress at their own rate in material which they have selected for themselves. The teachers in such programs must learn more about students' literature. Librarians must not only assist teachers in selecting appropriate materials, but must contribute to the total program of teaching children to know and understand the field of children's literature.

198.

68.

Vol. 5, 1960

PART IV

## Reading in Relation to the Total Curriculum

### 1. The Place of Basic Reading Instruction

EMMETT ALBERT BETTS

Our general theme is "Reading in Relation to the Total Curriculum." We have under consideration "The Nature and Function of Basic Reading Instruction." Therefore, our assignment is to examine basic reading instruction in relation to the total curriculum. However, our deliberations are to be in terms of *New Frontiers in Reading*.

Hence, we will consider these questions:

1. What is basic reading instruction—in terms of goals, systematic sequences, materials, and methods?
2. How does basic reading instruction contribute to the pupil's competence to participate in the curriculum?
3. What areas of reading instruction are not fully developed or evaluated? That is, what are the frontiers?

Preparation for a considered discussion of the above questions requires an intimate knowledge of how reading is being taught (or not taught!) in different classrooms in different schools in different communities. This personal information can be gained only by working with and observing pupils in varying sets of conditions. For example, there appear to be as many varieties of grouping and individualized reading plans as there are teachers and teaching conditions. Furthermore, published reports of these plans sometimes appear to be generalized fantasy rather than actuality.

Then, too, preparation for this discussion of basic reading instruction requires a thorough knowledge of both surveys and experimental research on focal points in systematic reading instruction. A critical evaluation of theses and independent reports on comprehension, for example, will yield about ten acceptable studies. In other instances, accepted studies—such as the Morphett and Washburne report on mental age in reading readiness—are misquoted often.[1] In short, the selection and interpretation of different types of studies is relevant to the assessment of current reading practice as well as of the frontiers of instruction.

For the purpose of this discussion, two indispensables of basic reading instruction are considered: (1) plans used for beginning where each pupil is and (2) helping pupils to mature in their interests which take them to reading, in their automatic use of phonic and other perceptual skills, and in their abilities to think in a reading situation.[2, 3]

#### I. Basic Reading Instruction

There are many classrooms in all types of communities where most of the pupils are challenged at their levels of achievement and/or learning ability. In these fertile fields of learning, reading offers rich rewards: help on personal needs ranging from how to get along with their peers to how a jet engine works; relaxation with great poets and story tellers, and so on.

But these healthy learning situations have been planned over a long period of time; they just don't happen by the adoption of a plan for differentiating instruction, or of a method for teaching phonics, or of a program in audio-visual education. In these places, the teachers have been encouraged to experiment with, or try out, different plans for differentiating instruction. They have been inspired to understand their own levels of professional competence, and they have taken advan-

[1] Emmett A. Betts, *Foundations of Reading Instruction with Emphasis on Differentiated Guidance*. New York: American Book Company, revised 1957, pp. 120-124.

[2] Emmett A. Betts, "Three Essentials in Basic Reading Instruction," *Education*, LXXIV, No. 9, May, 1958, pp. 575-582.

[3] Emmett A. Betts, "What About Individual Differences in Reading?" The ABC Language Arts Bulletin, VII, No. 1. New York: American Book Company, October, 1957.



199.

tage of special opportunities to raise their individual levels. They may have studied, for example, phonetics and visual perception as a basis for teaching phonics skills. They may have studied the structural essentials of English, semantics, and the psychology of thinking as a basis for teaching comprehension. Finally, their studies of human development have yielded rich insights regarding individual differences and the sequential development of interests, perceptual skills, and thinking abilities.

## Individual Differences

One of our biggest problems in education is that research causes our problems to increase faster than our solutions. Regimentation of instruction, for example, has been an enormous deterrent to progress in education since the graded classroom concept was introduced in the early 1800's.

Individualized instruction has a very long history, antedating grouping as a means of taking care of differences. In the early 1930's, reports of individualized reading instruction, especially for beginners in reading, by Kiesling, Dean and others was only of passing interest on the educational horizon.[4]. Today, however, individualized reading is hailed by some educators as a major break-through in the teaching of reading.

In some classrooms, individualized reading is merely independent, or free, reading with varying practices regarding individual, group, or class follow-up. In these extreme situations, of course, there is little or no effort to teach skills.

Beginning with the early 1930's, a spate of plans for grouping children for basic reading instruction have been reported. Briefly stated, these plans included grouping (1) by the reading levels of the pupils within a typical heterogeneous classroom or (2) by the reading levels of pupils from several sections of the same class or from three or more consecutive grades for one period a day. Another basic plan included sectioning of classes at the same grade level in terms of reading ability, mental ability, and/or "social maturity." This later plan was an attempt to give reality to that deceptive fiction called a *homogeneous* group.[5, 6]

Any plan for differentiating reading instruction is essentially an administrative device—an approach to classroom management that places a premium on individual differences. Because teachers vary significantly in their administrative abilities, they cannot be regimented into the use of any one plan. Furthermore, the adoption of any one plan does not insure pupil development of interests and skills required for successively higher levels of achievement.

To give reality to differentiated instruction, successful teachers (1) understand the causes and symptoms of at least common difficulties in reading, (2) have the necessary perceptions and skills to use systematic observations as a basis for estimating the independent and teaching (or instructional) reading levels of their pupils, and (3) obtain some information on the readability level of instructional materials. Until these three essentials become a part of teacher's preparation, the outcomes of instruction will be blunted.

Successful teachers understand, for example, that lip movement or whispering, finger pointing, word-by-word oral rereading, and the like are symptoms of a reading difficulty. Furthermore, they know that one of the common causes of these symptoms is pushing the pupil into more and more difficult materials before he has the necessary basic reading skills. Yet in some classrooms today — where either grouping or individualized reading is emphasized—an observer can only reach the conclusion that lip movement and finger pointing are new standards for reading.

Any one of the basic plans for differentiating instruction undoubtedly produces better results than regimentation which is still too common in our schools. For this reason alone, individual teachers and groups of teachers are to be encouraged to study different plans in order to decide which one can be adapted for use in their particular situations.

[4]Betts, *op. cit.* p. 50.

[5]Emmett A. Betts, "Developing Basic Reading Skills . . . Through Effective Class Organization," *Education, LXXVIII*, No. 9, May, 1958, pp. 561-576.

[6]Emmett A. Betts, "Reading and the Fourth R," *Elementary English*, XXXV, No. 1, January, 1958, pp. 18-25.

200.

Inherent in each plan—individualized reading or grouping—are certain limitations and merits. What can be done through either plan may be only remotely relevant to what is being done in actual classroom situations. In my opinion, it is far more important to wage an all-out campaign to develop reading interests and "skills" and to shed light on ways to differentiate instruction than it is to generate a lot of heat over a man-made dichotomy of individualized reading versus grouping.

Protagonists of both grouping and individualized reading often make questionable, if not unjustified claims. One of these claims is that basic readers, not the teachers, kill interest in reading. This situation is something like the matron who carefully explained to her lady guests that the scotch and sodas weren't so good because she ran out of scotch. Reader interest is raised or muted in any type of program, depending upon the attitude and competence of the teacher. Plans do not work, and methods do not work, but competent teachers make the best use of plans and methods.

*Interests.* One of the major goals of reading instruction is the development of *interests* which take the pupil to reading. Serious consideration of this goal calls for (1) beginning where the learner is and (2) guiding him to higher levels of maturity in his interests.

In regard to pupil interests, the community has an enormous influence. Furthermore, there is evidence that the amount of reading done in a community is positively related to years of formal education and is reflected in the attitudes and experiences which the pupil takes to the classroom.

When interest in reading is evaluated in terms of active participation, very few adults are either avid or discriminating readers. One poll, for example, showed that only 17 percent of the adults in the United States were reading books. About 70 percent of the adult population read or look at magazines, but, with very few exceptions, magazines of a high cultural level have a limited readership. Although almost everyone takes a newspaper, there are significant variations in the quality of what is actually read.[7, 8, 9, 10]

In general, surveys reveal that adults in the United States do very little serious reading. The quality of reading done by teachers is most disappointing, too, because it appears to be only slightly better than average.[11] In order to give full weight to the first goal of reading instruction—*interests*—it appears that we will have to raise ourselves by our own bootstraps.

*Perception.* A second major goal of reading instruction is the development of phonic and other word-perception skills to the point which they are used automatically. Since the child has only one mind, he cannot divide his attention between word forms and meaning. When he has to attend to the word form, he tends to lose his grip on the meaning of what he reads. Hence, his perception skills are used automatically when he learns them and applies them in meaningful reading situations.

For beginning reading, the child must make the transition from oral to written language—from sounds to the vertical and oblique lines, the closed and open circles, and combination of lines and circles that are the written forms of words. This type of perceptual development appears to follow in a systematic sequence. At age three, for example, the average child can copy a circle; at age five, a triangle and a square; at age seven, a diamond. Therefore, the learning of phonic and related perceptual skills is especially important to the beginner.

Under the supervision of a competent teacher, pupils take a genuine interest in phonics. They are motivated by the desire to be independent, and without these word identification skills they cannot be independent.

Again, phonic skills are developed in a sequence from letter phonics to syllable

[7] *Adult Reading.* Fifty-fifth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1956.
[8] William S. Gray, and Bernice Rogers, *Maturity in Reading.* Chicago: University of Chicago Press, 1956.
[9] Henry C. Link, and Harry Arthur Hopf, *People and Books.* New York: Book Industry Committee of the Book Manufacturers' Institute, 1946.
[10] Douglas Waples, and A. M. W. Birkeland, "Reading Interests of Teachers," in B. W. Frazier, and Others, *Special Survey Studies.* Washington, D. C.: Government Printing Office, 1935.
[11] Graham DuShane, "Books in Reading," Editorial in *Science*, XXII, No. 3200, April 27, 1956, p. 703.

phonics to dictionary pronunciations. The pupil learns, for example, that vowels are the keys to the syllables of words; that the sounds represented by consonants, especially those sometimes troublesome two- and-three letter consonant combinations representing both elementary sounds and blends, need special attention. With this solid foundation in letter and syllable phonics, he easily learns to interpret pronunciations in a dictionary, which he may begin to use as early as age seven. In short, the child's learning route from letter phonics to dictionary pronunciations is a continuous, gradual one; there need be no confusing plateaus often set up by the age-old trichotomy of phonics, structural analysis, dictionary pronunciations.

In developing a *new* perceptual skill, the teacher usually begins with the sound of an element in a spoken word and ends with the letter or letters representing that sound in the written word. However, when the child is doing the first, or silent, reading of a selection, he is confronted with the wriiten word. Here he needs help in *applying* his phonic skills to the letters or syllables of the word. Therefore, he is given on-the-spot help, by the teacher, that directs his attention to the usual sound of *ou* or *ir,* for example, or whichever part of the word is causing an impasse. Briefly, then, learning and applying phonic skills often require two different procedures.

This sytematic development of skills is often defaulted in classrooms where either grouping by reading levels or individualized plans are used. Teachers using guidebooks to basic readers complain about the lack of specific help given. Other teachers using an individualized plan ask for sources of help that are readily accessible and easy to use. This concern for the development of perceptual skills is one of major importance and, too often, does not receive honorable mention by the protagonists of plans for differentiation of instruction. A plan sets the stage for differentiated instruction but what is taught is of primary importance!

*Thinking.* In the final analysis, the materials of reading are concepts rather than words. Vocabulary, for example, accrues from the verbalization stage of concept formation and from the study of roots and affixes; therefore, to talk about vocabulary development in terms of isolated mechanics of learning is to miss the point. The making of concepts requires abstraction and generalization, two facets of thinking.

The process called thinking and the product called comprehension are the focal point in reading and, therefore, in reading instruction. Hence, teaching pupils to think in reading situations is a truly major goal of reading instruction, cutting across listening, speaking, and writing.

Teaching pupils how to think begins in the kindergarten or whenever they are admitted to school and continues throughout life. This facet of reading instruction deals with three groups of pupil needs:

1. Personal experiences which are organized to make concepts.

2. Use of language to deal effectively with ideas and their organization, including knowledge of language structure, awareness of abstractions, and relationships between language and things, to ability to interpret punctuation, etc.

3. Versatility in shifting from literal to critical reading, including shifting rates of reading in terms of the depth of their purposes and their familiarity with the content.

## II. Basic Reading in the Curriculum

Reading and mathematics—embracing two types of language for the pupil to master—are keys to the successful participation in the curriculum. Reading, for example, is the key to open the doors of the mind to science, social studies, and our heritage of other literature. Effective instruction in the reading-study area, of course, goes far beyond the traditional boundaries of basic reading—into every area of the pupil's curriculum.

In the first place, reading is one facet of the language arts—that of communication. In basic reading-study activities the pupil learns perceptual skills which are crucial in accurate spelling. He also earns to interpret sentence structure, to identify topic sentences, to organize ideas, and to do other types of thinking required for effective communication through the written word. The teaching of reading,

202.

therefore, at first precedes and later is done concurrently with writing.

Second, through directed reading-study activities of different types the pupil first learns how and when to use a dictionary, encyclopedia, atlas, and other aids. The use he makes of these tools, however, depend upon the sterility or the richness of his curriculum.

Third, information which the teacher obtains on the pupil's interests, perceptual skills, stock of concepts, and ability to make concepts, and reading level is a guide to his needs in the major content areas of the curriculum. In turn, his reading-study needs in content areas serve as a basis for motivating the pupil in basic reading.

No longer can reading be divorced from the listening-speaking-reading-writing sequence. Neither can it be isolated from the rest of the child's curriculum.

## III. Frontiers of Reading

There is general dissatisfaction with the *status quo* of reading instruction. (Amos once explained to Andy that "the *status quo* is de mess we're in.") And there isn't much solace in the widely-quoted statement that we are teaching reading as well today as we did 25 or 100 years ago. It is, for example, very disconcerting to compare the achievement of today's pupils taught by a teacher with one or more college degrees with the achievement of yesteryear's pupils taught by an elementary or high school graduate. It is equally uncomfortable to compare the achievement of first-graders taught by means of an inexpensive hornbook with those taught basic readers costing about eight dollars for each pupil and/or a liberal supply of library materials, including visual-auditory aids. Certainly no one concerned with reading instruction today would attempt to justify this status quo. There is, however, considerable merit in delineating the frontiers of reading instruction and using the present concern to promote more experimental research—especially research directed cooperatively by both educators and scholars representing cognate disciplines.

Research in reading got off to a very slow start in the nineteenth century. During the last twenty-five years, however, many dimensions of the reading process and of different facets of reading instruction have been studied at an accelerated pace by scholars in pedagogy, psychology, sociology, linguistics, etc. Moreover, there has been an increasing awareness in the community, as well as among educators, that progress in reading instruction has lagged far behind that in science which has made possible speeds faster than sound, a look-see at the other side of the moon, vaccinations against polio, the use of nuclear energy for producing electric power, and a spate of other scientific advances. On the other hand, some progress can be reported—progress that provides indicators of the shape of things to come.

### Differentiated Instruction

During the last hundred years, some progress has been made on the dual problem of identifying individual needs and of providing for them within the classrooms. This is a crucial problem in all areas of education and at all age levels because only differentiation of instruction makes possible equal learning opportunities for the pupils within a classroom. Like a poorly-engineered airplane that has built-in headwinds, each basic plan has serious inherent limitations.

On this frontier, therefore, there is a need for the careful weighing of evidence on:

1. Plans for differentiating instruction that can be used successfully by teachers at different levels of professional competance.

2. Procedures for teaching reading as a social tool. (At present, reading to the teacher—a highly questionable practice—appears to be overemphasized.)

3. Effective methods for teaching word perception skills to pupils with significantly different constitutional and emotional make-ups.

4. Methods and procedures for teaching the pupil new "skills" and helping him to apply previously "learned" skills at times when he is motivated by needs of which he has a keen awareness. (In practice, overemphasis on an administra-

tive plan for differentiating instruction often obscures the need for systematic skill development.)

### Systematic Sequences

The concept that every teacher is a teacher of reading can be justified. But this concept cannot lead to the conclusion that every teacher *is* a teacher of reading. When everyone is responsible, then, unless the conditions are ideal, no one does anything about the weather, the defense program, or reading instruction.

Reading instruction needs no special justification for our citizens. It is one of their major concerns. From the amount of tax money and time spent on instructional materials, supervisors, reading consultants, and reading clinics, it appears that school boards and their designated administrators believe in basic reading instruction.

By definition, if not in actual practice, basic reading instruction is, first of all, systematic instruction. By systematic we mean methodical, organized, orderly, thorough, and regular. But what is basic, or systematic, reading instruction?

In the first place, basic reading instruction is sequential. It has an order in the sequence of language development: listening, speaking, reading, and writing. But basic reading instruction goes beyond the general consideration of its order in the language development sequence. It takes into consideration the systematic developing of interests, of phonic and other perceptual skills, of thinking abilities—the orderly development of specific learnings. Each of these groupings of learnings has its sequence of development, which requires synchronization with the other two facets.

One of the chief pitfalls in basic reading instruction is the confusion of needs and opportunistic instruction. To base instruction on needs requires thorough, orderly development of "skills" based on an intimate understanding of pupil needs. This assessment of needs cannot be put on an opportunistic basis, by the teacher's working with each child for three to five minutes, one or two times a week.

Second, basic reading instruction is differentiated in terms of pupil needs. This attention to specific needs gives thoroughness, regularity of help, and orderliness to instruction—providing some insurance for individual maturity in interests and "skills."

Planning conditions which permit the child to learn at his own independent and teaching, or instructional, levels is a step in the right direction. Guiding the pupils in their self-selection of reading materials is a boon to motivation in some classrooms. Encouraging independent—individualized! — reading does develop the reading habit in some classrooms. (Independent reading cannot be equated with individualized reading in all situations.) But all of these conditions only set the stage for basic reading instruction: the systematic development of "skills" essential to increased independence and maturity in reading.

One of the major frontiers on reading, then, is the evaluation of systematic sequences of "skill" development. The time to make these is here and cannot be postponed.

69.



## 5. Motivation and Reading

283.

RICHARD H. BLOOMER

NOWADAYS when the teacher thinks of reading and motivation, she thinks of things magnificent: charts, puppetry, television, plays, etc. We rack our brains for new ideas and devices to motivate children to learn to read which can compete with those produced by the professional motivators, the television and advertising men. Perhaps the teacher's goal gets lost in this competition for magnificently motivating ideas. For the teacher, motivation is making a child want to learn to read, and after he has learned to read, making him want to read.

In our rush toward the ultimate in motivation, we often forget two basic facts relating to magnificent motivation. First, the ultimate in magnificent motivation depends upon novelty for its power, and may in fact, because of the newness, act as a distractor from learning. Second, we very often overlook the plain, simple techniques which have always been a part of the bag of tricks of every teacher, the relatively simple manipulations of the classroom, which, when practiced with care, can endlessly ply the power and force to teach and motivate reading.

Why talk about motivation? It is not done well enough, and in fact, is often overdone as compensation. By overdoing motivation we are actually fostering a problem which makes motivation more difficult.

The major element of magnificent motivation is newness. We are all attracted by something new. When a person gives a talk, he thinks up a new joke to attract his listeners. Newness in some senses is a fetish. As a culture becomes highly communicative, two things occur. First, people share more common experiences, and the outside limits of newness decrease. Second, because newness is motivating, people in the culture making a business of motivating us leave little that is new, and new experiences become old very rapidly. One problem in the television business is finding something new. The reading teacher is in no position to compete with this business.

But newness rules itself out. As people go through life stimulated by that which is new, they become adapted to newness; as newness becomes expected, it loses its motivating power and force. Thus, the magnificent motivation sows the seeds for its own destruction. While this destruction is a fairly long term process, it does occur in elementary school, and certainly in high school, where many drop-outs can no longer be motivated by newness within the limits allowed in the school, and hence find newness in experiences outside of the school curriculum.

Newness is an emotional experience. As an emotional experience increases in intensity, perceptual distortion also increases; consequently newness of an extreme variety will produce an emotional reverberation in an individual. If the newness is sufficiently extreme it will also produce a negative feeling or tendency to avoid newness.

In terms of the magnificent motivation, newness is also a distractor. It tends to force the learner's attention upon the newness and not upon the learning. Occasionally newness may be made to function directly as a part of the learning experience, but usually the newness is an overlay and learning is incidental. Studies on incidental learning indicate sometimes a little gain and sometimes no learning at all. While we need to know a great deal

more about incidental learning, we may safely say it is certainly not as effective as intentional or motivated learning.

Third, motivation is specific to the learning itself. Hence, when more effective motivational devices are available to the teacher, it is questionable whether the amount of energy involved in constructing a magnificent motivation will in fact pay returns.

The teacher is an adult and the children are children. The magnificent motivation, while representing for the teacher only a slight degree of newness, may represent a wide divergence from familiarity for the child, and he may respond to such ambiguity with anxiety rather than with the desired learning. Not only the brain-damaged and mentally handicapped, but also the normal child may be over-stimulated or over-motivated, and thus adapted to such a level that he may not be able to use the emotional force later. One might ask if we are not making sophisticates of our pupils before their time.

Let us consider plain motivation, the manipulation of properties in the classroom to produce more effective learning. It does not require a great deal of preparation, but rather simply the organization of interests, time, competition, responsibility, and other simple things which can be utilized in any classroom without additional space and energy.

Children's interests more or less bridge the gap between the magnificent and the plain motivation. A child's interest has tremendous motivational force, and is something the teacher capitalizes on insofar as possible.

Children's interests really have two dimensions. First, specific interests; these do not last long but are highly motivating. The magnificent motivation attempts to create an interest; many interests, however, are already there.

A child's interest is closely related to his personality. The teacher's porblem is to get underneath the surface interest. Television is able to successfully compete with reading because it is constantly determining the extent of the child's motivation through sales tabulations, surveys, etc. We have recently completed a study at the University of Connecticut of motivation as related to book characters using as an index the number of times the book was checked in and out of the library. Those books receiving awards and picked by teachers and librarians as best for children tended not to circulate as much as others, and tended to have less plot and character conflict. The books liked by the children had lots of conflict and clear-cut differences between heroes and villains.

The classroom may be considered as a question-answer situation where the teacher is always posing a question and the child is always answering a question. In part an individual's motivation to answer a question depends upon whether he thinks he is going to be right, or the difficulty of the question. Questions may be made more or less difficult depending upon the mode of answer required, for questions may be answered in several ways. First, covertly, or inside oneself. Secondly, overtly where no one can hear. Third, overtly among people representing no threat, and fourthly, overtly in front of a total classroom. Thus, difficulty may be manipulated by means of the fact of an audience, its size, and status.

Keeping score is motivating. Scores can be compared with one's own previous performance, others' performances, in relation to time, etc. Applying tension to the pupil may increase his motivation by making the response more valuable. Competition between children increases the difficulty of answering the question.

Formalizing a situation is a peculiarly motivating device seemingly used only by teachers. We tell the child outright that we want him to be motivated, and he is. We tell him to do his best, and he does. It does not always work, but sometimes picks things up when necessary.

Properties are another medium for controlling question difficulty. Peculiarly, they are effective even when they bear no relation to the question. Notice some workbooks: the cover may be illustrated with rockets and jets, even though the words *rocket* or *jet* do not appear in the book.

The kind of answer you require bears relation to the question difficulty also. The pupil is more likely to give an answer when he is free to give his own non-specific answer. When the required answer is highly specific it is more difficult in proportion to its size.



When the answer is present the difficulty may be varied by pointing to the answer to make it easier, or adding distractors to make it more difficult. Pointing to the answer is the easiest, next comes copying the answer. More difficult is the translation from one simple system to another, such as translating from written to oral or vice versa; and finally is the reorganization of parts of the answer, which includes first translation.

This paper has been concerned with a return to the simple, plain motivations structured from element's intrinsic to the classroom, and has argued against the magnificent motivation that costs the teacher time and energy while netting her relatively little. Skilled manipulation of the child and the classroom situation is not expensive and nets the greatest profit in terms of motivating learning.

70.

# ORGANIZING CLASSROOM TEACHERS

## A. PRIMARY LEVEL

### 1. Classroom Organization for Learners and Teachers

ALVINA TREUT BURROWS
New York University

LET US CONSIDER class organization that provides optimal possibilities for children's learning. In view of the still peppery conflicts that surround this topic, it would seem that I should contrast results of the research that has gone on for the last twenty to thirty years on various plans of organization. The results of studies of individualized versus homogeneous basal reader groups fall generally into three patterns: (1) no statistically significant difference in comprehension and word study skills; (2) superiority for some or most of the basal reader groups, and (3) superiority for some or most of the individualized classes.

Obviously something is wrong in research that shows such contradictions. More rigorous controls,. more sensitive measuring instruments and evaluative procedures, both formal and informal, more carefully matched teachers or much larger numbers of them are some of the improvements that need to be made. The many variables that need to be controlled are admirably stated by Sam Duker in *Elementary English* for March 1966 *(2)*.

Until such studies are completed and their results are coordinated and interpreted, we must answer questions of organization on the basis of principle. It is my aim to take this approach to organization—namely, to consider purposes of instruction and what we know of the dynamics of group and individual learning as a means of deciding upon patterns of organization.

#### Goals of Instruction are Keys to Organization

No organization is good—or bad either—in and of itself. Organization or programing must serve particular goals. One thing automated teaching devices make clear is that a program is only as good as its exercises are appropriate to particular aims. I propose that goals must always be concerned with human changes. In our present consideration, they are concerned with children and their roles in learning to read.

For me the first and more important goal of instruction is to infect children with love of reading. If we fail in this, our whole effort is pointless. All other goals seem to grow out of or to strengthen this commitment. To achieve this end, we must help children apply their skills of comprehending the oral language to the comprehension of what they read. We must help children encompass some efficient skills of deciphering the printed code and to take pride in their growing independence. Further, we must foster in our pupils a gradual refinement of literary taste. We must foster their use of reading to solve life problems, utilitarian problems, aesthetic problems, ethical problems. We must work toward these goals in ways that enhance children's images of themselves and that quicken their sense of being related significantly to the main streams of life.

#### Some Goals Demand Interaction

Let us look at some of the organizational practices used by superior primary teachers—practices that free them and their pupils for individual action and interaction. First, these teachers plan room arrangements so that children can carry out directed activities and self-initiated ones with maximum independence. They arrange materials on low shelves and tables. Individuals and committees are selected, or elected, to help keep paper, paint, phonograph, records, wood, clay, and other materials in order. These teachers and their pupils make plans for the day and for the week. And this is not just lip-service; they really make the program fit their purposes. They set up cen-



207.

ters for work—for mathematical materials to be tried out, for science interests to be explored, for dramatic free play and planned dramatics. And of course there must be a classroom library and plans for running it, even in Nursery and Kindergarten.

In a first grade class this Spring, I observed the first meeting following a visit to a chick hatchery. The children's enthusiasm could be seen as well as heard! The teacher recorded some of the comments on the chalkboard, read them to the class, and asked for some sentences to connect the comments into a running report of the way they really saw things. Listening to the whole report to see if it told the main things about the journey occupied everyone. All followed along silently, at times pausing to match words heard with their printed symbols. Many pupils took turns reading sentences aloud.

Immediately after this reading, more first-hand experience became the focus. The teacher showed the class a small incubator that held three eggs. All the children were agog over the notion of hatching baby chicks right there in their own room. Plans for getting it started and questions about how long it would take came rapidly from children who lived near chicken farms but knew little about them. The questions and many guesses about their answers came more quickly than the teacher could write them down, but some were recorded for future checking.

In the time that followed, some children worked individually painting pictures,—not all of them about chickens, either. Some worked on puzzles, some looked at and read picture books. One group worked with the teacher on word analysis exercises with emphasis upon clear speaking, much needed by those six children and to some extent by many others. Three individuals read aloud to the teacher, practicing a story they were to read to the class the next day.

In the sample just sketched, there was an amalgamation of content, curiosity, strengths, and weaknesses guiding people's use of time and place. This is, in fact, what organization means. The goals, quite obviously, were to proceed from children's interests and experience to oral and written language, to further confidence and power by affirming individuals' contributions, and to set next steps by fostering curiosity. A whole class enterprise was the matrix of both small group and individual work and was in turn strengthened by the achievement of individual and class goals. Interaction was of the essence.

## Some Goals Necessitate Individual Teaching

Let us now look at a quite different kind of instruction. Suppose an obvious need is to help some fourth graders with the subtle skill of phrasing silent reading so that it makes sense. Children with such needs tend to read word-by-word, to pronounce words accurately but not to render meaning to such a passage as the following:

> Sam knew that the big black dog was running after him, but he was too scared to look. He knew that in a minute the dog would jump on him and knock him down. He had been bitten by a dog before.

Read in a monotone, this tension-filled passage conveys nothing. Indeed, without speech melody "heard silently" few American English sentences convey anything. Read in meaningful phrases, with contours of pitch and timing, a frightening situation takes shape.

When children for one reason or another have learned not to hear what they see in print, it seems wise to begin with the pupil's intent to communicate meaning from his own words. Have him write—or better still,—have him dictate a message, a story, or a report with which he hopes to catch class response and have him read his own content to a receptive audience. He will, of course, have to read it first to his teacher. Perhaps he will practice it several times. After several dictation and writing experiences, have him choose an article or story which interests him mightily, practice it with the teacher and with another pupil before trying to project it to a group or whole class. Reading with intent to communicate content that one knows and cares about in this way is vital. Hearing the melody of words on a printed page is a skill that improves comprehension; indeed, it *is* comprehension of a strategic sort. It strengthens both the bonds of com-

munication and the ego of the learner.

When some degree of skill and self confidence are established, group exercises may be even more helpful. Different individuals may read aloud the same passage to make it mean different things. At times the teacher will need to demonstrate to a group how a passage should sound and then have pupils try to match their oral reading to hers, sometimes chorally, sometimes singly.

I have tried to show that choice of individual or group instruction is a means to an end, not an end in itself. The stimulus of a group in opening up different responses to a controversy can be truly dynamic. That solitary reading—interacting with an author without the interruption of others—can be a meeting of minds, is witnessed in many biographies.

Particular skills can profit at times by group or individual instruction, depending not only upon the skill to be taught, but equally often upon the state of the learner. Is he easily distracted by others? Does he tend to imitate more confident pupils? Does he need a good bit of adult teacher support? If so, he may profit more from five minutes of teacher time alone several times a week than from working with a group for twenty minutes every day.

## Changing Views of Modern Teachers

This is not the time or place for a how-to-do-it consideration of individual reading plans nor of group reading plans, whether homogeneous within a class, or across lines *à la* Joplin. A groundswell of interest in individualization is evidenced in the continuing array of articles on this subject. In her lead article in *The Reading Teacher,* December 1957, devoted to the theme "Classroom Organization: Different Viewpoints," Nila B. Smith noted that the earliest teaching of reading was always tutorial and individual *(3)*. However, the apparent orderliness of prearranged and fairly constant groupings brings real comfort to some teachers. The apparent casualness of many shifting groups is entirely congenial to others. I deplore the rigidity and the attitudes that stem from the former, but I also deplore the paucity of experience for the pupil who reads alone without human interaction in a track of prearranged materials judged to be at his "level" and appropriately coded for him to follow "at his own rate." Such programing can become isolation, not individualization.

In spite of these concerns, I confess to a guarded optimism that our profession is progressing in the direction of greater flexibility and respect for pupils as learners. Blakely and McKay, in surveying the practices of 113 teachers in fifty school systems in Iowa, reported a wholesome range of individual practices to supplement a basal reader organization and considerable awareness of their goals of teaching *(1)*.

If this greater diversity of goals and activities can be grafted upon a basal reader group organization, then more fluid grouping based upon interests, specific needs, friendship patterns, can also be achieved. Next steps in professional growth on a large scale may well move toward relating solitary work or dynamic interaction to specific instructional goals and to children's needs for complementary, sustaining human relationships through reading.

### REFERENCES

1. Blakely, W. Paul and McKay, Beverly. "Individualized Reading as Part of an Eclectic Reading Program," *Elementary English,* XLIII (March 1966), 214-219.
2. Duker, Sam. "Needed Research on Individualized Reading," *Elementary English,* XLIII (March 1966), 220-225, 246.
3. Smith, Nila B. "Classroom Organization: An Age-Old Problem with New Slants, *The Reading Teacher,* 11, No. 2 (December 1957), 73-74.

209.

71.

Vol. 10, 1965

# 2. Building Lifetime Reading Habits in an Individualized Reading Program

151.

ALVINA TREUT BURROWS
New York University

LIFETIME attitudes and values are the human responses I should like to try to build rather than habits. It might be wiser to expect habits to change with the years. Lifetimes are longer now than they used to be, and who can say how we'll need to change them by the year 2000? Perhaps instead of going to a library, in the electronic era now aborning, we shall press a button in our home and flash book pages upon a screen standing on our desk within comfortable eye range. But regardless of the format of book, screen, or page; regardless of whether books remain on paper or become a combination of film and electric impulses, and regardless of the size and shape of libraries of the future, I trust that our children now in school will retain their eagerness to enlarge the world of mind and heart through the writings of other minds and hearts.

## Reading Programs in the Context of Longevity

Before proposing some of the ways in which an individually oriented program can contribute to such values, let us look at three directives toward the sequences and the climate in which reading values grow. I submit three directives: 1. Start



young. 2. Expose the reader to families and friends who love reading. 3. Look long years ahead.

By starting young, I do not mean to begin formal reading instruction at two or four or even necessarily at six. It has never been less important to rush an early attack upon reading than it is today. There are more non-reading sources of learning for young and old in the year 1965 than ever before in human history. Nor does anything in our technology suggest that these sources are about to wither on the vine—the electronic vine, that is—if we can judge by the increase of inventions in the last decade. Pictures in books and magazines and on billboards; pictures on television and movie screens, both indoors and out; pictures on newspapers, on dress fabrics, and on the walls of buildings! The world of graphic symbols has burgeoned beyond the most extravagant predictions of a century ago. In addition to pictures, still and moving, children have more toys to learn from than ever before. Some of them are bad, but some of them are so good that they almost force children into discovery and learning. In addition to the many visual stimuli, are all the media of sound transmission. Indeed, children are often so surfeited by these sources of learning that they tune us out with devastating skill.

Some of the best examples of starting young occur in nursery schools where children live a vigorous program of first hand experience and uses of language for the joys of self-expression as well as for the satisfactions of utilitarian communication. Here are the raw materials and the processes out of which pupils build the knowledge they need to bring order into their booming, blooming world. Here they forge the concepts that are the life-links of reading. When three- and four-year-olds play out the daily work rhythms of Farmer Small, along with planting gardens (or at least window boxes); when they visit a farm, see and hear a tractor, see and smell the cows and watch the milking done either by hand or by machine, they are blending reality into words spoken and heard, words seen in books, and ideas shown in pictures.

The second directive proposed before, to expose readers to others who read, takes us into the sociology of persuasion by example. I need not remind you that high achievers in reading quite generally come from reading homes. Since we seem to learn our values from those who value us, it is axiomatic that children whose parents love them and who also love books, are likely themselves to become readers. Statistics bear out the logic of this observation.

When a community supports its libraries and uses them widely, a reading climate becomes pervasive. It is natural to see people carrying books, going in and out of libraries and book stores, and to hear parents, friends and neighbors talking about books. These are part of the accustomed and visible signs of literacy. Where these activities do not go on, both schools and children are at a disadvantage. Exploration is sorely needed today of ways and means of making reading important in adult affairs. Today's emphasis upon literacy all around the world may well open up opportunities for research in this essential matter. Many a town could today be lead to see the economic importance of libraries and reading that would have scoffed at the idea some years ago. From economic values to humane ones is a road often traveled.

My third directive, to look ahead, means to look to the years that are no longer assigned to old age but to "dynamic maturity." The term has already been popularized as a movement, an organization, and as a magazine title. The name holds importance for anyone alert to the role of reading for new life designs. How much of social interaction do octogenarians want tied into their reading? What changes should the older reader expect in himself *as a reader?* Whatever the changes may be, flexibility as to purpose and content seems certainly to be related to age as well as to youth. With the ever extending life span, it behooves us to learn as much as we can about beginning and sustaining the individual as a reading person from his first efforts with print throughout life.

## How Individualized Programs Facilitate Lifetime Reading

Where does an individualized program of instruction fit into this lifelong sequence? What are its unique potentials in

210.

contributing to the lifetime of a person who increases the maturity of his reading as he increases in age?

By making learners' choices and decisions central in the instructional program we are increasing the potential for lifelong reading, for reading is inescapably concerned with making choices. One must choose what one reads, what to pursue during the process, and afterwards, what use to make of it. Whether one needs mere literal information, whether one wants to weigh accuracy or values inherent in what one has studied; or whether one feels compelled to make a creative response of some kind, the choices are the readers'. Or they should be! Often decisions are so rapid as to seem intuitive. At times, selection of response is more deliberate. In any case, reading to be profitable must engage the individual in making decisions.

I propose that an individualized program has a better chance to further the making of decisions than does any other organization. I do not stake an exclusive or a monolithic claim here, but I do propose that any organization that does not consciously provide for a broad range of decision-making by the learners, thwarts the actual process of getting meaning from the printed page. Choices involve selection of content, rate of work, purposes in reading, and overt or covert responses. In a well individualized plan, the reader most often works in a solitary fashion. Sometimes he elects to read with a group. Occasionally he is assigned to work with others on a specific common need, but he helps to decide when and if the goal has been reached. And even in a directed study group, the individual can and should find his own purposes, bring them to consciousness, judge his own success, and the value or appropriateness of his processes. But the novice spends most of the available time in reading by himself and for himself, even if the goals are as social as finding a good story for the class to dramatize. If reading is to be a lifelong affair, such personal identification with the processes—through making and testing choices time and time again—is of the essence.

Specifically, the satisfaction of making choices contributes dynamically to the reader's self-image rather than threatening that image. Selection, we are told, is never accidental. Given some range of content to choose from, what a child chooses is *on purpose.* Compensating for deficit, extending oneself or consolidating gains, exploring human relations, seeking new knowledge, escaping pressures, enjoying adventure or excitement; in any case the values are personal. Reading that helps an individual build himself in positive ways rather than lessening himself in his own eyes has a good chance of survival in his life design.

One of the specifics through which this process operates is through identification with characters met in print. The girl who reads and becomes one with the heroine of *The Island of the Blue Dolphin,* or with Wanda of *The One Hundred Dresses* takes something of their strength into her own fibre. The boy who helps Little Toot withstand the buffeting of wind and tide to get the liner off the rocks is never quite so fearful again. He has stood a test; he has proved himself adequate. Children reach out for such opportunities at home and at school and inevitably in books. We need to know infinitely more about this complicated process of identification as a literary comprehension skill. Without it there is little appreciation, if any. How it works precisely, eludes us. But the opportunities for identification rest in no small measure upon choice of what is read as well as how to respond. Contribution to one's image of one's self, to the pursuit of lifetime reading are inextricably intermeshed.

In answering the two questions as to how an individualized program of instruction fits into lifetime sequences of reading, and of what its unique contributions are, the values of personal choice, of exposure to almost infinite variety of content and style loom large. But above all, in my judgment at this moment, is the importance of identification. Little understood as it is psychologically, the poets have committed themseleves to it long ago. One of the recent assertions of this route to understanding is to be found in Paul Engle's sonnet about his daughter. "She became these books," the poet-father says of his child.[1] We, too, have been made by

[1]Paul Engle, *American Child.* New York: The Dial Press, 1956.



the books we have read. As teachers, may we continue to make and to re-make ourselves and to help youth to find joy in their own building.

211.

12.

Vol. 9, 64

# SEQUENCE II NEW TYPES OF CLASSROOM ORGANIZATION

## A. ELEMENTARY SCHOOL

### 1. Three Kinds of Grouping in the Same Classroom

CLIFFORD L. BUSH

TODAY's mass education requires grouping of learners for instruction; it is a means to facilitate learning rather than an end in itself. Grouping can be justified by turning to psychological theory—the complex skills of reading consist of a large number of separate learnings, responses to different stimuli brought one-by-one to the foreground of attention however brief the occasion may be.[1] Good teaching provides the opportunity for each individual learner to experience the desired response. It is for this reason that the criteria for grouping are numerous and constantly changing. Examples of such criteria are motivation, innate learning capacity, speed of learning, progress in listening and writing. Methods become (1) changes in spatial arrangements, (2) topical organization or learning tasks referred to as curriculum, (3) varying materials of instruction, (4) temporal, or the planning of the day's program, and (5) changes in methodology of instruction.

We, as adults, like to read, sometimes for recreation, sometimes for information. When did you first realize you like to do research-type reading? Your enjoyment undoubtedly stems from experiences you had in your formal schooling. Let's examine three types of groupings which help to realize this goal.

#### Type One—Total Class

Some objectives of the reading program can be effectively obtained by class participation as a unit. The teacher reads a story, poem, or play to the class with enthusiasm primarily for pleasure, although it may occasionally serve another purpose such as the introduction of a unit of study. The teacher gives a demonstration to build a common experience on which to base further learning experiences or create a new concept. The teacher conducts a directed reading period in order to create a purpose for reading. A test is administered to derive a specific grouping as a next step. A student reads to the class a selection he especially likes or one he has written himself. A fun story should be a regular part of the class's reading program. These are limited examples of total-class procedures.

#### Type Two—Instructions in Specific Skills

This grouping is artificially imposed by the teacher to help pupils with common learning needs, preferably developmental rather than remedial in nature. It should be a constantly changing structure as needs arise, not a permanent "Robins and Bluebirds" fixture. Alice Keliher has stated: "I call this Grouping-by-People."[2] A group of four children needs help in a specific vocabulary approach. Five need some experience in adapting their rate of reading to the material and purpose. Ten need experience in using source materials for location of information. Three need practice in getting the main idea from a paragraph. A major criterion for division into groups is the need of certain youngsters for simple, concrete experiences versus the needs of others to progress more rapidly to abstract, complex experiences calling for originality and creative efforts.

#### Type Three—Individualized Reading

When the learner is ready to progress

[1] National Society for the Study of Education. *Theories of Learning* and Sixty-Third Yearbook, Part I. Chicago, Illinois: The University of Chicago Press, 1964, p. 348.

[2] Alice Keliher, Distinguished Service Professor, Jersey City State College, Jersey City, New Jersey.



212.

at his own rate the teacher and he institute his own tailor-made program accompanied by frequent evaluation. The learner is encouraged to follow his interests, develop new interests, engage in work-study reading, and extend his own potentialities. Since this is an informal procedure the teacher goes to the learner instead of his reporting to the teacher. Self evaluation is an important part of this process with guidelines established in discussion with the teacher. The learner keeps his own records and seeks help as he needs it. This assumes that the teacher is aware of his progress, is guiding him in his choices so that teacher and pupil are closer together rather than the pupil leading the teacher. It seems trite to mention that a wealth of materials and a skillful, knowledgeable teacher are prerequisite to success with the individualized reading process.

## Summary

Good teachers begin the year by scheduling the first two types of grouping and gradually move into the third. Soon an overlapping, flexible grouping including all three permeates the reading program. An autocratic teacher cannot succeed in such a program; there must be the highest degree of human relations including warmth, freedom, friendliness, and cooperation so that self-discipline and responsibility are a part of the learner's behavior.

Publishers are cooperating with a variety of materials such as basal readers, classmate editions, readiness readers, parallel readers, trade books, and children's newspapers. There are many skill-building sources: *Reader's Digest, SRA Reading Laboratories,* programed materials, and children's encyclopedias and dictionaries.

Teachers must know and demand good reading materials. This can be done only if we frequently consult our educational journal book reviews, published lists by our own IRA, The National Council of the Teachers of English, The American Library Association, The Association for Childhood Education, The Child Study Association of America, and the latest books on children's literature. We should also plan some time in our busy schedules for the preparation of teacher and pupil-made materials; we might use newspaper articles, riddles, anecdotes, pictures, teacher-pupil messages, and children's stories done on a primer typewriter and placed in an attractive pupil-made cover.

The foregoing represents a plea to remove the learner from his passive role in the classroom and bring the teacher and pupil to an active cooperative learning behavior. We may thus come closer to challenging every pupil.

213.

73.

The Individualized Rdg. Pgm.: A guide to Classroom Teachers: IRA Conf. Proc. , Vol. 11, Part 3, 1966. Lyman C. Hunt Jr. (Ed.),

DONALD E. CARLINE

COLORADO STATE UNIVERSITY

# 7. Evaluation for Pupil Effectiveness

TODAY'S CHILDREN are confronted with problems vastly different from those faced by the youngsters of former years, when there were no school lunch programs, no school buses, school libraries, inexpensive paperback books, and automated work-saving devices. Today children grow up with fewer chores to do; fewer miles to walk; many more books, magazines, television, movies, and other forms of recreation to enjoy; but "nothing to do" in the way of choices for worthy use of leisure time. To a casual observer, it would appear that these conditions should provide more time for personal reading and stimulate a greater desire to read. Such may be the case for some children; but for most children, the contrary appears to be true. Therefore, the aim of the Individualized Reading Program (IRP) is to develop in children a love for reading books rather than to just "train" children to know how to say the words.

It is hoped that reading will become an integral part of every child's life. The old adage that learning to read takes place in the first grade, or in the first and second, or in the first three grades is dramatic oversimplification. In the first grade children can conscientiously begin a lifetime process of reading that we hope will give increasing pleasure and intellectual fulfillment. Children can use the first grade reading program as a springboard for growth and enjoyment so that they will continually develop reading as an integral part of their way of life.

To teach reading with focus requires careful scrutiny of how the child matures within the total reading program. Consequently, evaluation can be defined in many ways. But the single most important definition of evaluation in the IRP is the procedure followed to help children recognize their own capabilities and/or limitations within the reading process; and to improve upon any limitations in a positive, enthusiastic way. In essence, it is the yardstick we use to produce *readers* rather than children "who know how to read."



214.

## The Objective Versus Subjective Issue

Every reading program is concerned with children's progress in reading. While teachers of the IRP can effectively rely upon subjective judgment to determine how children are growing in the program, they also must be concerned about judgments based upon objectively derived evidence to support the rate of growth made in reading by their children.

Some areas of reading which can be measured objectively are vocabulary development, comprehension, rate of silent reading, oral reading, and study skills. To assess these areas, both formal and informal tests can be used. These tests may come from standardized tests, tests developed from various classroom materials, vocabulary tests, teacher made oral reading tests, or formal and informal study skills tests.

While teachers may test these more "concrete" areas of reading growth, caution must be exercised in interpreting the results. The limitations of all testing instruments are such that they can never fully measure certain parts of the IRP. Tests do not measure accurately such important factors as a youngster's ability to:

1] reveal values he has found to be most worthwhile in books;
2] maintain personal interest in a single selection or book;
3] consistently select books which meet his specific personal needs;
4] indicate his knowledge and application of word recognition skills;
5] utilize follow-up procedures for reference work;
6] review the material he has read by emphasizing cause-effect relationships and logical order of development; or
7] continue to build vocabulary.

While it is difficult to measure known factors in individualized reading, think how much more difficult it is to assess the intangible factors. Less evident accomplishments commonly recognized by the alert teacher using IRP are the:

1] development of a positive attitude in reading;
2] fostering interest in reading;
3] development of new areas of interest;
4] realization that reading is the heart of the curriculum;
5] selectivity of taste, discrimination and judgment;
6] ability to discuss what has been read;
7] free reading outside the classroom;
8] new thinking patterns;

215.

215

9] greater sense of personal responsibility; and
10] self-pride.

The intangibles as reviewed above cannot be measured objectively. These increments of growth can only be observed and then evaluated in terms of interest, reaction, and application with reading. But teachers must evaluate these less tangible accomplishments through:

1] the kinds of books chosen by each child over a period of time;
2] records based on observation and on individual conferences;
3] creative writing which has been stimulated by reading;
4] oral and written reports;
5] evidence of creative productivity resulting from reading, such as painting, drawing, puppetry, diorama, experiments, and home-made projects;
6] use of vocabulary;
7] sense of humor, both subtle and general;
8] use of all reference materials for research topics of interest;
9] activities out of school which may have resulted from reading;
10] reaction to reading and reporting made by others, including the teacher.

When teachers understand the values of appraising the unmeasurables as well as the perceptible growths, it is evident that they understand the basic purposes of the IRP. Great emphasis is placed upon building lasting values along with fostering the acquisition of reading skills. It is in the area of values that the IRP displays its greatest assets. Values themselves cannot always be clearly assessed. However, attitudes, feelings and interests are important categories of human behavior and consequently must be considered.

## Evaluation Through Self-Selection

One method of evaluation which is partly objective is counting the number of books read by the children. Certainly this one measure cannot be used as a single criterion for determining the degree of success in reading because the number of books read cannot tell the complete story. The number of books read is necessary information, but the quality of books read is a greater indication of success.

The purpose of self-selection is to provide the child with the opportunity to exercise his right to the seeking-behavior pattern (*1*). This

allows children to choose their own materials, and it provides them with diversity in reading. It is not unusual for children to become interested in one particular subject—such as dogs, horses, hot rods, sports, or science —and then express this interest by reading only in this topic area. Teachers in the IRP are supposed to guide youngsters from one reading interest to several. A measure of effectiveness in this guidance activity is revealed by the varied interests children display in books selected for reading. Recording books by categories is basically an individual matter and should be assessed on an individual basis.

A very important area of evaluation deals with attitudes. In most cases attitudes can be measured by an informal means; however, questionnaires have been prepared which measure the attitudes of children, the attitudes of parents, and even the attitudes of teachers toward the classroom reading program (*2*).

Attitudes of children toward the classroom program and toward reading books are measurable. Attitude inventories consisting of questions requiring choices about some aspect of reading are not difficult to develop. Sperber (*3*) has developed this type of reading attitude inventory which could be used as a guide for teachers in developing a reading attitude inventory in their own classes.

Obviously, many intangible factors which indicate success of the IRP cannot be measured. Parkin (*4*) states, "Then there are certain gains she [the teacher] cannot help observing: freedom of choice and the joy that accompanies it; release from the tethering pull of the group; release from the stigma of the group label; a relaxed attitude toward reading; the pleasure of making reading a live dynamic activity; more time for reading for the purposes that reading can serve; a change of emphasis from competition with one group to competition with one's self."

## The Evaluation Derived from Teacher-Pupil Conferences

Since teachers, for the most part, work with individuals, it is essential to record important data referring to the way children are reading. Keen observation by the teacher is vital. Much of this observation can be accomplished through group activities and class participation. Individual conferences become necessary because it is not likely that truly accurate notes can always be made during group activities.

A primary function of the teacher during the conference is to assess the needs of each youngster. Veatch (*5*) says it so well in her latest book. "The individual conference is the peak, the apex, the climax, the high

[redacted] 217.

point of the instructional reading program. Everything that comes before leads to it. Everything that comes after should be determined by what happens in it."

The conference may well be referred to as the heart of the evaluation process in the IRP. Notes made from the conference serve not only as a reminder of what the child needs and is doing but also as a record for the teacher. Typical items recorded should include the approximate reading level of the child, an estimate of his reading potential, his interests, and specific needs for special help with skills development.

## The Keeping of Records

All teachers should devise their own way of keeping records, a system which is "comfortable" and "purposeful" for her. Record keeping need not be a burdensome chore; it is a personalized system of evaluation whereby the teacher always knows what is happening to each child.

In many cases, the children and the teacher may keep records together. Children always find record keeping a challenge; for them it is a way to make accomplishment evident. In the lower grades, teachers can prepare simple forms for the children to record their reading progress. This can be done easily with three by five note cards, a loose-leaf notebook, or other form of chart.

Children themselves can be as resourceful as the teacher in keeping their own records. It need not be a burdensome chore for the child, but merely a simple way of keeping visible his personal accomplishments and needs. Creative, attractive, enjoyable ways can be devised readily to assist children with record keeping.

## Summary

Inherent in evaluation in the IRP is assessing the development of purposeful reading. Children need guidance in discovering the values inherent in purposeful reading. While many values can be cited, IRP is most involved with the value of pleasure children find in reading activity. There is no denying that pleasurable and purposeful reading is dependent upon the mastery of recognition and comprehension skills. However, many children attain satisfaction in reading but never pursue reading independently. These children know how to read but cannot be classified as "readers." Nevertheless, many children do find that reading awakens their senses, stirs their imaginations, and arouses their emotions. These

children not only know how to read, they are true readers as well and will continue to pursue reading throughout life.

## References


1. Olson, Willard D. *Child Development.* Boston: D. C. Heath and Co., 1959, 402-404.
2. Hunt, jr., Lyman C. *An Experimental Project Appraising the Effectiveness of a Program Series on Reading Instruction Using Open-Circuit Television.* U. S. Office of Education, March, 1961.
3. Sperber, Robert. "An Individualized Reading Program in a Third Grade," Chapter III in *Individualizing Reading Practices,* Alice Meil, editor, No. 14, Practices Suggested for Teaching, New York: Bureau of Publications, Teachers College, Columbia University, 45-51.
4. Parkin, Phyllis B. "An Individual Program of Reading," *Educational Leadership,* Vol. 14 (October, 1956), 37-38.
5. Veatch, Jeannette. *Reading in the Elementary School,* New York: The Ronald Press Co., 1966, 120.


219.

74.

The Individualized Rdg. Pgm.: A guide to Classroom Teachers; IRA Conf. Proc. vVol. 11, Part 3, 1966. Lyman C. Hunt Jr. (Ed.),

DONALD E. CARLINE

COLORADO STATE UNIVERSITY

# 8. Evaluation for Program Effectiveness

THE FOCUS for converging forces in individualized reading is the classroom. It is here that the demands of children, society's changing philosophies, the findings of experimental research, and the best from teaching experience are utilized and realized. It is here that life is real and earnest for both the teacher and children. The ideas, ideals, and proposals so often written on paper must be impressed upon living tissue. Responsibility is no longer an abstraction but a living reality. Never will "keeping school," "keeping in sequence," and "keeping the teaching of reading focused on test scores in a prescribed fashion" be considered an adequate criterion for teaching reading.

Truly the major responsibility of the teacher is to bring about the maximum degree of reading achievement in each student. From the beginning to the end of the year, the teacher is concerned with the important question, "Has the desired amount of reading achievement been realized?"

Although evaluation in reading is generally thought of in conjunction with tests and examinations, it is also present in every attempt by the teacher to ascertain how well learning to read has been realized. Within the reading program, innumerable occasions arise to offer opportunities to judge and determine progress quite accurately. The key to all evaluation for both teacher and pupil is responsiveness; and any form of response, be it oral reading, silent reading, quality of comprehension, reporting, vocabulary development, word attack, word manipulation, or selection of materials, may help to determine achievement in a definite though somewhat limited way. Answering questions, discussing reading during teacher-pupil conferences and during directed reading, or in myriad other response-making situations, pupils expose their levels of understanding in reading. If a teacher is alert and attuned to these



220

220

responses he soon discovers children's various needs and is, in all truth, determining progress or measuring results.

So, do you want to know how to conduct evaluation procedures in your individualized reading program? Do you want everything listed? If such were done, there would be hundreds or even thousands of specific activities. Should anyone attempt to labor along that line, even if he did list every item, he would find it difficult to measure these numerous and specific particulars. Consequently, evaluation will be discussed under eight principles.

As a preliminary step it becomes necessary to classify these principles for evaluative purposes. Evaluation in terms of these principles becomes a direct teacher activity but only indirectly an activity by children. Progress is revealed through their responses as observed by the teacher

So significant is teacher responsibility for evaluation in the IRP that it is set apart. A teacher needs a constant reminder that evaluation is a major responsibility. The teacher must set the ground rules, ground rules within the framework that *All Objectives Should be Most Worthwhile.*

Following the determination of objectives for IR, the teacher must necessarily consider other teaching responsibilities. Objectives jotted down on paper or resting within the teachers mind will avail little, they must be translated into behavioral changes in the pupil's reading. So involved is learning how to read that clear thinking about how one actually does learn should be the next consideration in understanding what a teacher does for evaluation. One of these responsibilities goes directly to the heart of all learning. In every case, the child grows only to the extent that he exerts himself. There is no other way. Out of this fact emerges another procedure: *Children Learn to Read Through Self-Activity, But This Activity Should be Psychologically Sound.*

The realization that all persons, children included, learn through their own efforts and that this activity should be functional indicates that another responsibility of the teacher is to determine which reading activities need to be emphasized so that learning to read will be psychologically sound.

Suppose that children are asked to learn to recognize a certain number of words. These words may be introduced orally or may be written on the board; skill exercises may be organized in order to help the youngsters effectively recognize these words; but this should be done always in conjunction with an activity or material which the youngster feels is a part of his own work. Children then recognize the words more easily and

[redacted]. 221.

are able to place them in proper perspective so far as their personal experiences and need for recognizing the words are concerned.

Suppose though, that some pupils are unable to realize that their personal experiences are related to the words which they have studied. How can this inability to recognize these words in the light of personal experiences be explained? Simply then, these children worked faithfully to memorize the words but were unable to repeat them at a later time because the words have no real meaning or value to them in their personal lives. Certainly it was not a lack of self-activity because, no doubt, excessive effort was made to remember the names of these words.

The soundness of the activity cannot be questioned as far as the teaching objective was concerned. Why, then, did not all the children know enough to place the words in the context of experience? First, because memorizing words for the sake of calling them off has its limitations. It is the duty of the teacher to know that the psychological soundness of an activity must always be determined by the nature of the teaching objective. In the second place, the children did not realize that they were to learn the words in the light of meaningful context by bringing to bear their own personal experiences. Consequently, they were unable to truly learn no matter how much they tried to memorize the words. Word recognition is not the same as naming words. So it appears evident that the soundness of the activity must be determined by the established objective to be attained, *self-activity to be psychologically sound should be in fullest agreement with the type or types of learning involved in attaining the objectives.*

While the teaching of reading thus far has been discussed as a progression from general activity to psychological application, there is another responsibility in the IRP that should be evaluated. The phase to be considered at this point is very important and is frequently missed by pupils; therefore, the teacher must direct pupils' thought and effort so that it is not slighted. Sometimes a fragment or item is learned, and the pupil believes that he has learned the total. The perfect point in case is the youngster who tries to unlock a word by employing many attack skills in combination form or hodge podge fashion. Obviously, he has learned only fragments of attack skills and not specific skills in which he can operate with accomplishment. He is conscious of the interrelationship of all skills, but not the application of a specific skill as it seems necessary. In the IRP skills are taught in conjunction with diversified materials that the youngsters are reading at the moment. It is a principle of teaching to

direct learning toward meanings, relationships, applications, organizations, and structures. The principle point of evaluation in the IRP then is that *learning to read should be unitary, not fragmentary.*

Now, learning to read requires effort and, whenever children spend energy in a fruitless undertaking, there are bound to be many factors that might lead to delay, procrastination, loss of interest, boredom, and diminishing effort. If these factors which cause individuals to be halfhearted and lackadaisical about their reading are not corrected, no unusual accomplishment can be expected. Children can become discouraged as do adults. If their labor seems to be of little value to them they get bored. Nevertheless the teacher must help pupils to want to learn to read; she must do all within her power to create the right spirit on the part of the youngster; this means *the energy of pupils should be released so that they apply themselves fully.*

Let us not overlook the innumerable individual differences within the classroom. Each youngster is uniquely different from every other youngster. Pupils are not alike as peas in a pod. Some show striking differences in physical appearance, in health, emotional makeup, and in output of energy and effort. Their ages are not the same. Many are sensitive, while others will be hard and tough. What will be difficult for some children in growing through to reading maturity will be very easy for others. Backgrounds do vary. A few may learn to read easily, while others may have a very difficult time in learning how to read. It seems reasonable to surmise in such a situation that only in the IRP will the teaching of reading be more than the same prescribed diet and treatment advocated originally for the group as a whole. It is essential then that *teaching reading should always provide for individual differences.*

Learning to read, like learning all other tasks, does not proceed evenly and smoothly despite a great desire to learn. When the real job of trying to achieve some goal is undertaken, everyone will find obstacles along the road leading to that achievement. At times special effort will overcome some of the difficult aspect of reading. At other times the difficulty cannot be surmounted; a plateau is reached. When learning to read runs head-on against some perplexing situation and no progress, regardless of effort, results, then the time for special organization is in order. When a child, to use an analogy, is ill, he may be helpless in determining what the trouble is or how to correct it. So, too, pupils in the reading process may not know why they cannot progress or what to do about it. In the IRP at this point, the teacher diagnoses the causes of lack of progress in

reading, analyses the difficulty, and regroups the children to teach certain needed skills. If he does not or cannot do this the children needing this kind of attention will be left out. Indeed, only in IR can the teacher perform this type of teaching and special grouping to *provide for diagnostic and remedial teaching.*

When the teacher and children work together in the IRP, they actually form a small segment of society. Quite naturally, the one teacher in the group because of his knowledge, experience, and delegated authority is expected to guide this little society in a diplomatic way and to provide conditions that will be ideal for work and cooperative effort. Physical conditions such as light, heat, ventilation, and other factors in the environment should be regulated to obtain the best results while children read. The teacher controls the classroom environment by his utilization of facilities and equipment to establish an atmosphere conducive to learning.

The social environment is important. Unless there is some degree of organization and self-control in the classroom, serious and profitable concentration can be hindered. When a child is fearful of the teacher, he will be emotionally strained and may not work as effectively as another individual, or even as other members of the reading group. It is the teacher's obligation therefore, to consider as an art of evaluative procedure the condition of the environment, or that *the physical and social environment for learning should be ideal.*

Now the reader is in a better position to answer the question: What must a teacher do in the IRP to measure his effectiveness? Instead of teaching reading with a long check list in hand of specific things to do, and with a long list of specific ways to measure efficiency and achievement of youngsters, we can organize reading instruction to a set of key responsibilities which in turn form the core of evaluation. These teacher responsibilities indicate what the teacher does in order to serve as a guide for his children, and how he develops insight for himself to measure the success of teaching through the progress made by the children.

Many teachers go through the motions of teaching reading without making a serious attempt to complete the total teaching process. Unless one can visualize the varied purposes underlying a total procedure, one cannot give direction to children in the mastery of skills to be achieved.

Evaluation in the IRP draws heavily from educational psychology, especially upon those divisions pertaining to theories of learning, motivation, and individual differences. This is as it should be. All teaching,

224.

including the teaching of reading, is the influence of educational growth and this growth depends in large measure upon how learning is motivated and directed. What content should be learned is not the province of psychology but the way it is learned is. Therefore, *it is necessary for every teacher of reading to be a keen student of child development and psychology.*

As living requires change, so must the objectives in the teaching of reading change. The IRP provides such teacher diversification and opportunities for teachers of reading to establish new objectives. No other program can match this kind of flexibility. Teaching reading should never become so mechanical that carrying out a traditional set of sequential steps or the manipulation of classroom work by daily assigned tasks minimizes the importance of the teacher. The IRP provides freedom for teachers but demands a respect for individuality. Teaching reading should focus on knowing where one is going and how to get there. As instruction becomes more scientific, there will be less dependence upon trial and error. Individualized reading takes its name from concern for individual differences. It recognizes the importance of seeking behavior, self-selection, pacing, individual conference, and above all the individuality of the teacher. It will be profitable for teachers of reading to look at the criteria for evaluation and to know the responsibilities of both teacher and pupil for the necessary interaction between the two.

Again, let us review these primary responsibilities. They are:

1] The objectives should be most worthwhile.
2] Pupils learn through self-activity, but this activity should be psychologically sound.
3] Self-activity to be psychologically sound should be in the fullest agreement with the type or types of learning involved in attaining the objectives.
4] Learning should be unitary, not fragmentary.
5] The energy of pupils should be released so they may apply themselves fully.
6] Teaching should provide for individual differences.
7] Teaching should be diagnostic and remedial.
8] The physical and social environment for learning should be ideal.

The concept of evaluation in individualized reading is a very critical one. To understand and apply it is no easy task. One must first understand the true purpose and need for individualizing a reading program

before one becomes perceptive about the process of evaluation. Good teaching of reading is founded upon the reading process and how it is developed. The understanding of the process of learning is based essentially upon the developmental characteristics of growth and maturity within each child. Such insight leads to the discovery of flexible teaching procedures which permit individualized reading. Teaching activities without such a basis may be fruitless.

[redacted]
226.

75.



### b. The Cortland TV Reading Project

148.

RICHARD L. CARNER

An experimental closed circuit reading program has been conducted in Cortland, N. Y., for the past two years. The project, sponsored by the State of New York and supplemented by a *Reader's Digest* research fund, had as a major goal the exploration of various phases of teaching reading through the TV medium. The purpose of this report is to present some of the more important findings derived from this study.

#### First Year Study

The basic objectives of the first year program, begun in October 1958, were to gather evidence concerning the effectiveness of CCTV as a means of teaching reading at the elementary level and to assess the reactions of pupils to this type of instruction. For this purpose it was decided to limit the coverage of the TV lessons to average readers of the fourth and sixth grades. The lessons were telecast on Mondays, Wednesdays, and Fridays from October to June. Word analysis, vocabulary, comprehension, library skills, and literature appreciation were emphasized. A variety of commercial and specially prepared materials were used for the television lessons.

Two teachers, one from the fourth and one from the sixth grade in the Cortland elementary schools expressed an interest in doing the television teaching. With the aid of reading consultants and the studio technicians a decision was reached concerning the basic organization and format of the TV lessons.

In order to provide some comparative measures in growth in reading for those pupils receiving the television reading instruction, a control population from another community, similar in socio-economic status to Cortland, was used. Both the experimental and control groups, consisting of average readers of the fourth and sixth grades, were administered the reading portions of Forms I and II of the Iowa Tests of Basic Skills before and after the televised lessons.

The results of the initial testing indicated that there were no significant differences between both groups in reading ability. However, based upon intelligence test results, the control population was significantly superior to the TV pupils at both grade levels. This finding was possibly indicative that the control groups were superior in terms of achievement potential.

The time ordinarily devoted to classroom instruction in reading was reduced by an amount equal to the television viewing time in order to avoid a disproportionate emphasis upon reading instruction for the TV groups. The control groups were provided the same commercial materials that were used in the TV lessons. Reports indicated that these materials were widely used by these pupils.

*Findings:* An analysis of the reading test results showed that the TV fourth graders gained significantly more than the controls in vocabulary, comprehension, and total reading. The findings for the sixth grade were essentially the same, the only exception being in the area of comprehension which favored the TV group but not significantly so.

Pupils' reactions to the television reading instruction was favorable for the most part. For example, most of the pupils felt that they were getting more from the TV reading lessons than their regular classroom instruction. The majority expressed the opinion that they enjoyed reading activities more when they were given over television. In contrast to other studies made in this area, relatively few pupils indicated that they were doing more independent reading than before the television reading lessons. Most of the pupils also responded positively toward the talk-back system by which they and the teleteacher were able to communicate. Lessons in which there were guests or other pupils participating appeared to have a strong appeal for the children.

Perhaps one of the major conclusions reached as a result of the first year program concerned the teleteachers. During the year both of these teachers had the dual responsibility of their own classrooms as well as planning for and presenting the TV reading lessons. Clearly, this placed an extra burden upon them since they were released from their classes for just the morning in which they were to go before the camera. As anyone with TV teaching experience can attest, this was perhaps not the most realistic approach since this type of instruction requires unusually careful planning to accomplish the objectives of the lesson within a strict time limit.

Consequently, the plans for the following year included provisions for a full time teleteacher who could devote her entire attention to the problem of preparing for and teaching the television lessons. One of the original teachers was subsequently used for this purpose.

In spite of the many technical and instructional problems that seemed to perpetually confront those involved in this new venture, the findings of the first year appeared to support a cautious but positive conclusion that closed circuit television can be a potent means for teaching reading at the elementary level.

#### The Second Year Program

Although the introduction to televised reading instruction appeared to be successful, more questions were raised concerning this kind of instruction than were answered. The experimental aspects of the second year program emphasized seeking answers to questions which had been primarily grist for conjecture. This portion of the report will be restricted to dealing with the answers found to the following questions:

1. Is there evidence to indicate that the use of television for the purpose of teaching reading reduces the need for differential instruction at a particular grade level?
2. Do superior, average, or below average readers benefit most from whole class television instruction?
3. Does television instruction maintain its effectiveness over a prolonged period of time?
4. What effect do the TV reading lessons have upon pupils who manifest a strong negative attitude toward reading?

In contrast to the first year, all pupils

of the fifth and sixth grades, regardless of reading level, received televised reading instruction. The average readers of the fifth grade were the only group for whom the experience was not new. The television lessons were received daily instead of three times per week as in the previous year. The length of the televised lessons was reduced somewhat so that the total amount of time devoted to televised reading was about the same as the first year. The regular classroom reading lessons again were reduced in proportion to the time devoted to the TV lessons.

The lesson content still emphasized the development of vocabulary as well as word attack skills appropriate to the grade levels taught. Also given priority were comprehension, library skills, reading experiences with literature and, in general, encouraging children to do more independent reading. The lessons were aimed at the average group at each grade level but every classroom teacher had a complete lesson outline which included suggestions for supplementary activities or reading for the various groups.

*Findings:* The results of the first phase of the study indicated that the use of television does not reduce the need for differentiated instruction. Superior, average, and below average pupils of the sixth grade were used for this portion of the experiment since they had no prior experience with the medium in reading. Although one would hypothesize that good instruction should increase differences in growth, the analysis of covariance in which initial reading ability was controlled for statistically, showed that the relative gains made by all classifications of readers were the same. In other words, whole class instruction in reading via television appeared to lead to a general regression toward the mean in reading achievement.

When differences between gains made in reading the year prior to the television instruction and gains made during the year of such instruction were examined the regression tendency became very apparent. Superior readers made significantly smaller gains following the television instruction than in the previous year in the areas of vocabulary, comprehension, and total reading. These differences were significant at the .01 level. By contrast, the below average readers gained significantly *more* than the previous year in which there was no television reading instruction. The average readers made gains within the level of expectancy over this period.

Based upon these findings it would appear safe to conclude that the whole class approach in the teaching of reading through television benefits some pupils and is detrimental to others. Therefore the principle of gearing and pacing instruction to the needs of children is as valid for the television medium as it is in the regular classroom.

Another aspect of the study was devoted to discovering if there was evidence that televised reading instruction became less effective over a long period of time. The fifth grade average readers had completed two consecutive years of this type of instruction. As a result a comparison could be made between gains made the first and second year of this instruction in reading achievement. The results show that the gains made in comprehension for this group were significantly higher the second year than the first. Gains made in vocabulary remained about the same while total reading gains favored the second year. Therefore, in terms of the lasting power it would appear that televised reading instruction did not lose its effectiveness or appeal to children over the two years.

**Summary**

Among the major findings of the first two years of teaching reading through closed circuit television are:

1. TV pupils, when compared with a control population receiving regular classroom reading instruction, exceeded the controls in the amount of gains made to a significant degree.

2. There is no evidence to support the proposition that whole class television instruction in reading is equally beneficial to all children in the same classroom. While television presentations may be used for broad coverage in some areas such as music or art, it is not a valid approach in teaching reading. The most serious negative effect was upon the superior readers while the below average readers apparently benefited most from the experience.

151

3. Children receiving television reading lessons over a two year period gained as much or more the second year of such instruction than the first year. Over this limited length of time there is evidence to indicate that a so-called "novelty" effect is largely myth and that the holding power of instructional TV would quite probably be good over a period of years.

4. There was evidence that more positive attitudes toward reading were engendered by the television reading experience. Pupils who were highly negative toward reading changed significantly in a positive direction.

As a result of these findings in the use of closed circuit television in teaching reading, those connected with the project are optimistic concerning the future use of the medium for instructional purposes. However, it is apparent that knowledge concerning the effectiveness of TV as an instructional tool lags far behind its technical perfection as a means of communication. To a large measure, the growth of educational television will depend upon the criteria established through forward looking research.

[redacted], 228

76.

## 2. Magic of Presenting Materials through Television

HAZEL HORN CARROLL
Southern Methodist University



READING can be one of life's rainbows, and children can find the "pot of gold" if they are led to read creatively. Creative reading can result when a reader allows himself to be communicated with.

A person cannot "tune out" and still receive the full impact of an idea. He must surrender to the idea and not give half-attention, and he must engage in intense concentration. There is an old saying which sums up this kind of attention. It says, "This one thing I do with all my heart, my mind and my soul."

When a reader engages in this type of thinking, it is easy for him to visualize and "see with the mind's eye" what the author is relating. He is not just calling words; he is living the ideas and experiencing the sensations and imagery the author had in mind. He is seeing, feeling, smelling, and tasting the throbbing page of print.

In addition to this experiencing, he must stay in control of his thinking. This means that he must accept some ideas, reject other ideas, and integrate new thoughts with his already existing body of knowledge.

Creative reading can be born of this kind of thought. From this thinking ideas are amplified, and details are added up to conclusions. More ideas emerge than are on the printed page. This type of reading translates reading into an art.

The purpose of this discussion of creative and imaginative reading is to depict reading as a thrilling, rewarding, and satisfying experience. If this goal is to be achieved, the question of how to guide children to this experience must be answered.

One of the answers to help bring about this kind of reading is the medium of television. Have you ever seen a child sitting before a television screen in rapt attention and with his eyes lighted with satisfaction and enjoyment? He is being communicated with. He has surrendered to the ideas. There is little doubt that he is experiencing and living the thoughts being portrayed. Television captures a child's attention like magic. Let us use this magic medium, then, and channel it into helping us achieve our goals for reading.

One program series being telecast in Houston, Texas, has as one of its purposes the creating of a lively enjoyment of reading. It is seeking, too, to foster an appreciation of all types of literature. Appropriately, it is called "The Magic Book Shelf." It is beamed by the Gulf Region Educational Television Affiliates to 23 counties from KUHT at the University of Houston.

In each program of the series an elementary librarian tells the story of a favorite book of the pupils in his school. Then he suggests other related books for the viewers to enjoy reading.

One of the programs tells the story of "Pecos Bill and Lightning" by Leigh Peck and "The Trail Driving Rooster" by Fred Gipson. Both stories have a background of Texas during the early pioneer days. Pecos Bill's amazing adventures are related in the book about him. And the other story has a Mexican rooster named Dick as its hero. In the book, Dick participates in a brawl and saves the day for the Texans.

This writer watched spellbound viewers receiving this program in one of the Houston schools. Magic was there, too. It is believed that this magic will surely lead some of the viewers to lively creative reading of some of the suggested books.

229.

77.

## 2. Meeting Barriers to Comprehension

248.

HELEN J. CASKEY
University of Cincinnati

ALL OF US ARE aware that children encounter difficulties in understanding what they read. The general public makes such worried comments as, "Children in school today can't read as well as they should." Although these persons may also be saying, "Children could pronounce words better if they were taught by a different 'method,'" they do also often mean "understanding of what is read is incomplete." Teachers say, "He misses most of the questions"; and a child himself is the most direct and vigorous in his pronouncement: "I don't get it!"

What is needed, most especially by teachers and learners, is an understanding of why comprehension is often incomplete and inaccurate. What are the barriers that prevent a fuller understanding of what is read? This one is a persistent and troubling question; and while no easy answers are available, we need to look as sharply as possible at the nature of the troubles children encounter.

If "barrier" is an unusual term, it may be a useful one because whatever comes between pupils and their understanding of what they read does offer a pretty solid and formidable obstacle. It is more than a light hurdle, something which may be easily leaped over or lightly pushed aside. There is a demanding struggle to be engaged in if a reader is to surmount the high wall that keeps him from the pleasant reading vistas, the delightful reading pathways, and the joys of fulfillment in reading which lie on the other side of barriers to his understanding of what the printed page has to offer him. As teachers, we must know what barriers exist between the reader and his clear understanding if we are to discover more effective ways of helping pupils to get a good running start and scramble over the difficulties.



### Effective Assistance to the Learner is Essential

Although we are eager to help the young reader, it is sometimes possible that our out-stretched helping hands never really touch him. For example, we conscientiously discover weaknesses in specific reading skills; and then we give to pupils, as directed in books and manuals, the practice exercises designed to meet the precise needs of individuals or groups of pupils having the same reading difficulties. In so doing, we anticipate that these specific skills necessary to the understanding of what is read will be so greatly strengthened that improved comprehension will result—an effective procedure, surely. Furthermore, we observe that practice exercises of this sort have been carefully planned and constructed, and more often than not they are pretty glamorously packaged. Newly prepared, keyed to today's interests in space exploration and the like, they appear glossily efficient. Or perhaps we prepare such practice exercises ourselves, thoughtfully adapting them to use words and concepts familiar to our pupils. But in either case one question is quite important: Have we made as certain as we possibly can that the reader himself sees the connection between the practice exercise and the reading tasks he encounters elsewhere? One may be quite competent in answering the questions posed in a given exercise but at the same time unaware that this particular approach to comprehension is related to one's reading problems as far as understanding other printed materials is concerned.

Perhaps to be more certain that our proffered help turns out to be the kind that the pupil can feel is actually boosting him up over his particular barrier we will need to do two things. First, we may help the pupil analyze the nature of his own difficulties; and second, we may make certain that the activities he engages in are clearly related to his own significant reading experiences. Good teachers often, for example, say such things as: "What help do you think you need now? What were you thinking about when you said . . . ? What made you think this one was the best answer? or Before you look for this information, what will you need to do first?"

While there is seldom time to allow a description of every boulder in a pupil's barrier to understanding or to analyze every concretion of accumulated failure, we can profit by being sure the learner himself knows as clearly as possible the size and nature of the stumbling blocks in his own path. We can attempt to enlist his judgment about the quickest and most satisfying means of demolition. Actually, it is he who must set off the charge of dynamite!

It is also possible that in our eagerness to boost the learner along to greener fields in reading comprehension, we have lost sight of the helpful effects of present reading pleasure. We may have incorrectly assumed that all contacts with books and reading are fruitful ones, leading to the enjoyment of reading in the widest sense. In fact, in fostering vigorously the development of the skills related to understanding and enjoyment, the pleasure to be found in reading may have been lost. Freedom to explore interesting books with a chance to read for one's own pleasure is a powerful incentive to continued practice. My informants are telling me that even extremely reluctant readers are eager to read about Batman. So long as some interest is present, the reader can gain enough momentum to reach wider and more rewarding interests as more assurance and satisfaction are gained. Freedom to explore may also include freedom from formal questioning or checking up on reading skills. Checking and questioning, essential as they are, need not extend to all reading situations.

It is quite likely, as middle-grade children encounter many kinds of materials new to them, that the road to comprehension is so steep and forbidding that these children will need extra doses of encouragement or what is often called a "supportive educational climate." Particularly is this supposition true if we ask children—as we often should—to make inferences about what is not directly stated in the selection. In responding to any question about his reading, a child must risk the possibility of error. Many

230.

good teachers wisely minimize this risk by commending the pupil upon the process in arriving at a conclusion, rather than universally offering approval for correctness of an answer. A pupil who hears frequent judgments as to "this is right" and "that is wrong" may become timorous in venturing any response at all. A more fruitful kind of guidance may well be in such comments as, "Was there something in the story that made you think the man was very old?" or "What was told in the story that made you feel Jim would become Bill's good friend?"

It is apparent that the questions asked, and the context in which children must answer them, can be a fairly serious threat to their self-esteem, thus offering something of a barrier to understanding. A visitor to an elementary classroom, demonstrating to a group of teachers the need to establish rapport and to relate the content to the selection to be read to the pupil's own experience, asked a fourth-grade girl, "Do you have a pet cat or a little kitten at home?"

The little girl answered with devastating directness: "No, I never had a cat. The housing where I live they won't let you have any pets, not a cat or a dog. So I don't never have one."

A visitor, unaware of the community, may perhaps be excused for betraying a child into a public admission of what she must indeed have felt a deprivation, but it is an experience one wishes not to repeat too often. Perhaps if we listened more, and extracted less by way of questioning, our guidance could be more sensitive and more effective.

### Teaching Procedures Require Thoughtful Organization

Another way in which we may unwittingly enlarge the dimensions of barriers to comprehension may be through unwise organization of our teaching procedures. It is possible, for example, to plunge into the details of a learning situation before learners are aware of the nature and shape of the task before them. As one observes teachers at work, it becomes increasingly apparent that preparation for a reading experience may be either perfunctory and disconnected or vital, clear, and functionally related to the objectives sought and the procedures followed. For example, a given selection may be enjoyable to a group of readers only if some Spanish words in the story are understood. Knowing in advance what these words mean in this context, how they are like familiar English words, and the special significance these words will have in getting the sequence of the action—all this knowledge helped a small group of rather inept fifth-grade readers to achieve understanding and enjoyment. Other aids included a clear over-view of the likely problems arising for the personages in the story as well as a specific understanding of other useful features of the structure and design of the narrative.

In another group in a fourth-grade classroom, a realization that their oral reading was ineffective stimulated these pupils to plan with their teacher for some specific practice sessions. These children set up objectives for clear, interesting reading in audience situations and practiced until they themselves were satisfied that they had made real progress. In these examples the skill and practice segments of the situation are clearly seen by the learners as related to more remote goals and to a larger pattern of needed skills. Generalizations about locating main ideas, or about the surveying or reviewing of material, or using locational aids are thought of not as ends in themselves but rather as means to reading for understanding. If there is some temptation to say of a pupil "He does very well in dividing words into syllables" rather than thinking of him as a user of these generalizations as a means to more rapid, accurate grasp of meaning, a shift in our organization and emphasis may be indicated.

### The Relationship of Reading to Experience Requires Consistent Attention

For many years concern has been expressed for frustrated pupils who attempt to read selections unrelated to their experience and beyond their present level of skill. Yet we are confronted constantly with newly disturbing aspects of this old problem. A few illustrations will make this point clear. A fourth-grade

231.

pupil, using oral speech sounds familiar to her, confused the word "left" with "let's" and hence missed completely the meaning of a passage. Confusion is also caused when word endings such as "ed" and "ing" are dropped. One wonders, also, if there is not some confusion as a child translates as he reads, possibly transforming the "he went" that appears in print to a more familiar form "he done gone." Even the delightfully archaic "hit" for "it" may trouble some children, in whose speech it is still a reminder of Elizabethan English. Our thoughtful listening to what pupils say, plus many opportunities to hear and to speak in less familiar patterns, seems essential. Understanding grows through a guided use of language in all areas.

Indeed another persistent problem is that of providing experience in all areas of language—speaking, listening, writing, reading—so that pupils may become increasingly familiar with a wider number of concepts and with the relationships among ideas. Since it is easy to spot details of information in any discussion, pupils are often expected to respond to details. Unfortunately, pupils are less often expected to react to more complex ideas and situations in which inferences and conclusions are to be drawn from clues found in the selection discussed. A sixth-grade class once tried to discover which of three boys described in a story was the oldest. Diligent search of their text and accompanying pictures produced no reliable hint whatever. After the class session was over, a student teacher felt uneasy because "a right answer" could not be found. The pupils, however, were quite rightly satisfied with the conclusion that they had no way of telling the ages of the personages in the story. It is a significant milestone toward competent reading and a high level of comprehension when the learner realizes that there are occasions when facts are not presently available and that there is no "right answer."

### Additional Help Is Needed in Making Application to New Situations

Extending understandings grasped through reading to a new context takes the reader into new, but important, aspects of reading skills. Recently I had an opportunity to ask some seventh-grade pupils who were reading at about a fifth- or sixth-grade level to react to a short poem, written in very simple language, which was in effect an extended metaphor. Their answers to some multiple-choice items showed that they had some grasp of the meanings expressed in the poem. A different kind of question, in which they wrote a brief statement of their own immediately after reading the poem, required extending the meaning obtained and applying ideas in a new context. Many responses to this kind of question were often quite without reference to previously indicated understanding of the passage just read. Perhaps these pupils were responding to the most recent segments of their reading, rather than holding on to a thread of thought which needed to be woven into conclusions drawn a few sentences later. The problem is one which I hope to investigate further. If it is true that difficulties of this kind are common, then some specific guidance in such situations may be called for.

It is true, of course, that ideas received through reading are often put to fairly immediate use. One may follow explicit directions or say to oneself, "Oh, yes, that's the way it is. I never understood this before!" In a more complex situation the reader must move out beyond application in the same situation to something new in some way. He may be asked to think: "If this is true in this situation just described, in situation A and for Mr. B. and Mr. C. in the year 1900 what would happen, I wonder, if the same kind of event happened in 1966? What if it happened to Mr. X. and to Mr. Y.? What would be the same? What would be different?" If such a "moving out" in a pupil's thinking about new relationships is a desirable aspect of reading comprehension—and it appears to be an essential aspect of creative thinking—we need to do more than we now may be doing to help pupils achieve it.

### Conclusion

Children may be helped to overcome barriers to their comprehension by wise and helpful guidance. If the reader analyzes his own difficulties and makes useful connections between practice for developing skills and the pleasurable rewards of reading, he is likely to read with greater understanding. Teaching procedures that provide support for his efforts and that are carefully organized, tend to give him useful assistance. A pupil's ventures into new areas in interpretation and his risk of defeat as he tries new responses require teachers to give needed encouragement as children use their own initiative and courage in overcoming barriers to comprehension.



232.

78.



to farm bulletins. A literate person can check on the claims of rival political candidates or advertisements of consumer goods, while the illiterate person is at the mercy of unexamined tradition as well as the modern techniques of mass media. Though recognizing that reading is only one of the four closely related aspects of language, reading and writing, speaking and listening, reading is our principal concern today.

There is considerable evidence that the level of reading achievement ordinarily reached by many American students is not adequate for the demands it must meet. Numerous high school surveys show that 20-30 percent of all students are seriously deficient in reading. Some of the students show generalized deficiency affecting all areas, and their problem must have a general attack made on it, but a significant number have good ability and also do well in subjects not involving much reading. Because of this it is pertinent to examine the methods used in teaching reading.

Up to the First World War reading instruction usually began with the letters and their sounds. Not long after this, there was a shift to predominantly visual methods based on research which showed that skilled readers read in longer units, such as whole words or even phrases. From an extreme position in the 30's which ruled out all instruction involving individual letters and sounds, and seemed not to believe in the alphabet, there has been a gradual retreat toward including some analytic techniques in a peripheral way, after the child has acquired a basic sight vocabulary. This procedure has caused serious confusion since it involves two antagonistic approaches which interfere at the early learning stages. Psychology says that nothing is ever really forgotten, so that once a "look-and-say" system is well established, a frill of phonics superficially applied will not insure accuracy or even an efficient attack on unfamiliar or forgotten words. If for a significant number of students current methods do not provide adequate reading skill, it is time to look again at the nature of the language they try to teach—in this case, English.

All language began with speech, which

Vol. 5, 1960

## 4. In Clinical Programs

### a. Sound Reading

SALLY CHILDS

Why are we all so concerned about reading and related skills? Nowadays much more of what we learn comes through books than formerly, not only in school but in all our lives, from child care

[5]*Reading for Life*. ed., Jacob Price. Ann Arbor: University of Michigan Press, 1959.

233.
[redacted].

developed in man thousands of years before he could record the fact in writing. Judging from ancient skulls it took a long time for the structural changes which make human speech possible, to occur. In a recent experiment it took three years to teach a chimpanzee three words, and the total learned in six years was only seven words. However long it took, by 10,000 years ago men had begun to settle down in villages and must have developed rapid and efficient speech, in order to have carried on the cooperative community enterprises characteristic of their society.

Writing began a relatively short time thereafter and surviving records prove that by 5,000 years ago it was well-developed. Almost all writing began as pictures of concrete objects and activities, later extended by means of homonyms and rebuses to abstractions, but always related to the meaning not the sound of the word. Eventually the greater efficiency of working with sounds became apparent and in the Middle East phonetic symbols developed, at first syllables and later the alphabet, invented only once in all man's history according to the experts. This probably occurred in Phoenicia, but certainly it was the Phoenicians who improved and spread the new technique. The Phoenicians wrote from right to left, which must have been difficult for right-handed people who wanted greater speed and legibility, and therefore the inventive Greeks, always quick to recognize a good thing, not only borrowed the alphabet, but added vowels and simplified the letter signs; after a period of experimentation with alternate directions they changed their writing to the left-to-right direction, incidentally also changing the way the letters faced. Our alphabet was developed still further by the Romans, who perfected the capitals we still use, and later on by others who developed the lower case letters, a connected script for faster writing and ever-simpler letter forms.

Since early writing was completely phonetic, it continued so for a long time since there was a trained class of scribes whose whole outlook was conservative. As time passed Latin continued the language of educated people and of scholarship and all writing was done in it, this use persisting to a large extent even down to the times of Queen Elizabeth. Speech always tends to change and eventually dialects arose especially among the illiterate, ordinary people, but no one tried to *write* much in them until 1300-1400. When Dante and Chaucer wrote in the "common tongue," they spelled phonetically and wrote the sounds as they heard them. Unlike Italian, for example, which has changed relatively little and so is still phonetic, English has changed a great deal and has also borrowed heavily from other languages, especially Latin and Greek through the French. So in English we now have a phonetic-alphabet language, basically Anglo-Saxon but with an enormously rich vocabulary from many languages added on. The irregularity of English spelling thus grows from two sources: a faster change in pronunciation than spelling could keep up with, and the addition of words from other languages with foreign forms and sounds. Efforts to make spelling regular have not proved popular in England nor America, but in Norway it has been tried and they have had to have three spelling reforms since 1900.

Having classified English as basically an alphabetic-phonetic language, however irregular, what *is* the contribution of phonics to the developmental and remedial reading programs?

We shall consider the remedial program first because it presents us with a clearer picture of the issues involved. In all remedial programs are found children who are significantly retarded in reading. Some of them will be found to be retarded in everything and consequently theirs is a general problem, not essentially a reading problem, and they should be distinguished as a separate group. Their difficulties may be caused by factors of physical, mental, emotional, or educational origin and they must be studied and appropriately helped. They may need remedial reading as part of a total program but their reading problem is just one aspect of a bigger problem. They may need only a small amount of specific teaching in reading or they may need medical or psychological investigation. They are not real cases of reading disability and should not be dealt with as

234.
[redacted].

such, but as cases of a general learning problem.

The children who do have trouble in reading and related language skills, which makes their performance below that in areas not dependent on reading and below their ability, may be considered cases of Specific Language Disability requiring special study. These are the children for whom, as reading teachers, we have unique responsibility since theirs is primarily a problem of reading and other language skills. When specially studied, the following are found to be their characteristics:

1. Performance in language skills inferior to that in other areas such as arithmetic, and below ability measured on an individual test of intelligence.
2. Tendency to have trouble in other language skills such as spelling, speech, vocabulary, handwriting, expressing ideas orally or in writing.
3. Showing no physical disabilities.
4. Lacking a clear pattern of one-sidedness and coming from families with left-handedness.
5. Coming from families showing the same difficulties with language.
6. Coming from families having more boys than girls—4 or 5 to 1.

An explanation for Specific Language Disability advanced by the neurologist and psychiatrist Samuel T. Orton suggested as a cause the incomplete establishment of one-sidedness, either little superiority of one side or a shifting or inconsistent control. For these children the methods by which other children usually learn to read were not adequate and a new and different approach was needed. It has been found that even cases of severe difficulty can be retrained by the use of a phonic approach, even when other methods have failed. These children often show extremely poor visual memory and sometimes also poor auditory memory as well. This reveals itself in the reversals of poor readers and spellers as well as substitutions of incorrect sounds letters and endings. They must therefore reinforce the weak area by the stronger so that a many-sided approach is possible to the memory load which learning requires. When a child sees, hears, and feels letters and sounds simultaneously, he is better able to make the arbitrary connection between sound and symbol which is the crux of learning to read. Fortunately since there are only about 40 sounds to be connected with the 26 letters this is not insuperable, especially since many of the connections are invariable. The program is most efficient if the child can stop reading the old way while he is learning the new, and he should be read to in order to keep him up in his work while he is building his new skill, a sound project for parents who wish to help Johnny. This period will be shorter or longer depending on the age of the child, the amount of time spent, and the skill of the teacher. Children who have been not only utter failures but behavior problems as well have been restored to constructive activity and gone on to complete school and college, sometimes even with honors. Without this help not only their contribution to society would have been lost, but society might have had to take care of them, depending on their reaction to their failure and rejection. If their reaction was *fight*, the result might have been juvenile delinquency; if on the other hand it was *flight*, the result might have been emotional maladjustment.

When schools have discovered how successful this kind of program has been with Specific Reading Disability, they ask why the children cannot be selected before they start to read and be taught "right" from the beginning, thus avoiding the waste of time and the damage of failure. The answer is that they can and several schools have had such a program in operation for years, eliminating reading problems except for transfers from other schools, through teaching the children chosen as potential cases of Specific Reading Disability by methods adapted from the remedial methods. But the screening needed to choose the children *before* they start reading is cumbersome and expensive, even though effective. Increasingly schools have asked why *all* children are not taught this way. Anna Gillingham, long a pioneer and authority in this work, has always said that it was probably better for the majority of children to learn by visual methods. She is now changing her mind because under her guidance some schools have established programs in which all the children are taught by the Alphabetic Approach, as she calls her phonics. The

235.

mcethod has had great success in both public and independent schools and now others are trying the experiment. There is unexpected confirmation from Boston University of the merit of beginning reading with the letters and their sounds. A recent coordinated project under Dr. Durrell showed conclusively that beginning reading with letters and sounds showed the highest correlation with good reading achievement, and is essential for rapid progress. So we may summarize at this point that the indications are that not only for the remedial program but also for the developmental and general-problem as well, phonics is the most effective approach to reading. Of course the aim is the same as with the visual approach, rapid, accurate, automatic reading with a high level of comprehension.

Having established the case for phonics, it is now time to discuss phonics programs in detail. The criticisms of phonics in the past have all too often been justified by their poor organization and content, as well as their poor implementation. These practices still unfortunately continue, which is hardly surprising since no real course in phonics is offered in any teachers' college to the best of my knowledge. What is offered is incidental to some other course, in perfect keeping with the place assigned to phonics itself. Those who characterize it as "grunt and groan" or equate it with "buh-a-tuh" have never been exposed to sound phonics.

In suggesting the characteristics of a sound phonics program, the organization and content should be considered first. The process of reading and its relation to speech should be explained to children and the way in which sounds are related to writing should be demonstrated. Then the letters and their sounds should be introduced as rapidly as the children can absorb them, beginning with the short vowels and unequivocal consonants. As fast as possible the words formed by the letters are presented, not for memorization but for *reading*. After a small amount of practice at the word level, sentences can be constructed and read and woven into stories. Spelling is completely equivalent with reading at this stage and a child can write what he can read, depending on his motor skill. Of course, at once, the problem of irregular or non-phonetic words arises because in English it is inescapable. In the beginning the teacher may include a few such words as *is, has, was* without which it is difficult to write or say anything, but she underlines them to indicate that the children are not responsible for them, and *she* reads them. Very shortly the children can supply them correctly because there are so few. Thereafter, it is a question of adding the phonic complexities to the basic phonetic structure. Enough practice must be included to produce automaticity over as wide an area as possible, at which level meaning results directly from the visual stimulus with the suppression of intermediate steps.

A principle which I have used successfully in spelling can be very helpful in reading also and when once learned can be relied on ever afterward. All words may be divided into three groups:

A—*SOUND* Words: those which are pronounced exactly as they are spelled—basic phonics

B—*THINK* Words: those which contain some element which requires thought and the application of some additional knowledge —expanded phonics

C—*SEE* Words: those which have some irregular element which prevents their solution by methods A or B and requires memorization of the irregular element

I have said "method" because in "solving" an uncertain word, A is tried and if no recognizable word results then B, then C. Of course this technique is only needed in the initial stages and later on when the automatic mechanism breaks down. To reinforce learning the C-words, cards having the word on one side and pronunciation on the other are very helpful and also a notebook containing lists of words for study and review. Either of these activities may be practiced by children alone or in groups. It is important to use oral reading constantly as a check on accuracy until it is relatively perfect.

Auxiliary techniques to be learned include the principles of syllable division, use of the dictionary, an understanding of sound symbols, a later study of prefixes, suffixes and roots as an aid to vocabulary and analysis. In addition to studying single words, it is necessary to give practice in

[redacted]. 236.

gaining meaning from longer and more complicated sentences and from a wider vocabulary. It seems clear that the best way to accomplish this is to establish an interest in words and books and to promote wide reading for real enjoyment rather than to attempt to use the direct method of exercises, which often defeats its own end. How many children rush through books because they can't wait to find out the end—and then check on a word or two they didn't understand?

The implementation of a good phonics program must be adequate or the program will not succeed. Teachers don't need to be speech experts, but they must be able to make the sounds of English in isolation so they produce exact, pure sounds. The consonants usually present the great problem since /b/ and /t/ are needed if they are related to *bat* not buh and tuh. No /u/, either before or after, as in /ul/ or /ur/ for /l/ or /r/. Vowels present less of a problem, though in New England some people have difficulty in distinguishing /i/ from /e/ or /o/ from /u/, while in the South the diphthongizing of the long vowels may cause complications. If the educated speech of the community is used as a standard, the actual pronunciation is less important than consistently attaching a sound to a letter.

Teachers must also be well versed in the techniques suggested above. They must know about syllable division and accent, Methods A, B and C of word attack, alternative pronunciations, dictionary techniques, the behavior of prefixes, suffixes, and roots. They should have reasonably wide vocabularies and not be afraid of uncertainty of meaning and the final arbitration of the dictionary, if context and analysis fail. Enthusiasm is contagious, so if pupils are to like words and books, possibly the first step is for teachers to like them, too. My student teachers have often said, "Why didn't anyone ever teach us this before? It's interesting!"

One caution is needed. Phonics programs sometimes bog down because of what one teacher called "over-teaching" but which I think is "over-formulation." As in arithmetic, it is often extremely difficult to verbalize some processes and definitions for young children, and the attempt produces utter confusion, although the process itself may be relatively simple to apply. A second-grade child can easily learn to divide and pronounce correctly such words as *little* and *table* but it is confusing to cope with, "A doubled consonant within a root word is usually a clue to an accented first syllable and a short vowel," even at the fifth grade. A national authority says, "When two consonants come between two vowels, the syllable division is usually between the consonants and usually only one consonant is sounded." He is obviously referring to a *doubled* consonant but he says *two* consonants, so his statement is quite inaccurate.

A look at the history of language has shown that English is an alphabetic-phonetic language, however irregular. For learning this type of language, it is most efficient to begin with the basic units of sounds and letters, rather than with the visual approach appropriate to an ideographic language. Whether in the remedial or developmental program, this approach is probably best for all children but is essential for those with Specific Language Disability. In addition it is most important that a phonics program be soundly implemented. Any "sound" system, well implemented and centrally—not peripherally—used, will provide a firm foundation for reading skill. If we can reduce or eliminate poor reading, we may not only solve many school problems, but contribute substantially to the solution of even greater ones.

237.

79.

Vol.7, 62



# 3. Methods of Teaching Reading in the Primary Grades

DONALD L. CLELAND

Beginnings are important. In our country, from the days of *The Hornbook* to the present highly structured Basal Reader, adults have eagerly watched their children as they embark upon the all-important skill of reading. We cannot overemphasize the importance of giving proper direction to primary children as they journey along the reading road toward the aims and objectives of an effective reading program. We cannot falter in our chosen task—our citizenry, especially those who would criticize our efforts, are watching our every move.

Before I deal specifically with methods of beginning reading instruction, let me define reading and learning.

Actually, we cannot directly observe the process of learning or reading, we must be satisfied to infer that changes in behavioral patterns have taken place. One author, Smith,[1] suggests that learning is "the acquisition of new behavior patterns, or the strengthening or weakening of old behavior patterns as the result of practice." Kingsley and Garry[2] state that "Learning is the process by which behavior . . . is originated or changed through practice or training. . . ." Next, what is reading? An acceptable definition might be "Reading is a central mental activity—the reorganization of experiences back of symbols." Reading, then, may be thought of as learning. If you will accept the premise that reading is the reorganization of experiences back of the symbols, then the reorganization of these experiences results in either the acquisition of new behavior patterns or the strengthening or weakening of old behavior patterns.

Psychologists, on many occasions, have asserted that learning grows from the repeated occurrence of a stimulus and a response. Association of the spoken and written word seems to be necessary if a child is going to learn to read. The development of an association between the printed symbol and its spoken counterpart requires careful guidance on the part of the teacher. Take the so-called "look-and-say" method of teaching reading; it seems necessary that the child's eyes be on the written word as he hears the spoken word or as he pronounces it himself. Guthrie[3] notes that "many nonreaders among children foil our attempts because they have established habits of looking away from the printed word to which we point." Because of this condition, Anderson and Dearborn[4] suggest that the so-called "look-and-say" might better be called the "look-while-you-say" method. The McCracken[5] modification of the Basal System of teaching reading lends itself to this condition. The Fernald[6] kinesthetic method which emphasizes the tracing of the word while it is being pronounced forces the child to look at the word as he says it. Finally, a child has learned to read when he makes the physical, mental, and emotional responses to the printed word that he made previously to the spoken word. In other words, the child has been so conditioned that the printed symbol evokes all the affective and emotional concomitants that the spoken word aroused.

In presenting new words to a child, the teacher may call upon most of the child's sensory modalities to assure the permanent association between the written word and the experiences concomitant to the spoken word. It may take many stimuli to get the child to respond appropriately to the written word. The process of *redintegration* or *cue-reduction,* advanced by Hollingworth[7] then enters the learning situation. Redintegration refers to a situation in which a portion of a complex stimulus gives rise to the total response which was made originally only to the total complex

[1]Henry P. Smith and Emerald V. DeChant, *Psychology in Teaching Reading,* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961.

[2]Howard L. Kingsley and Ralph Garry, *The Nature and Conditions of Learning,* 2nd Edition, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957.

[3]E. R. Guthrie, "Conditioning: A Theory of Learning in Terms of Stimulus, Response, and Association," *The Psychology of Learning,* Forty-first Yearbook of the National Society for the Study of Education, Part II. University of Chicago Press, 1942, p. 25.

[4]Irving H. Anderson and Walter F. Dearborn. *The Psychology of Teaching Reading.* New York: The Ronald Press Company, 1952, p. 141.

[5]Glenn McCracken. *The Right to Learn.* Chicago: Henry Regnery Company, 1959.

[6]Grace Fernald. *Remedial Techniques in Basic School Subjects.* New York: McGraw-Hill Publishing Company, 1943.

[7]H. L. Hollingworth. *Educational Psychology.* New York: Appleton-Century-Crofts, Inc., 1933.

238.

stimulus. This concept can be carried one step further. After a child's initial experience with a new word, it takes fewer and fewer clues to recognize the word. Finally, a condition is reached in which only the barest minimal clues are needed to evoke the background experiences which are meaningful to the contextual setting of the word. Hence, this is the rationale for repeating each new word in different contextual settings which fall within the child's experiential background. This, in the academic sense, is developing word recognition skills—developing the ability to recognize words with a minimal number of clues.

Another traditional school of psychology is the Gestalt. This group of field theorists emphasizes the learner's cognitive structures and the meaning given by the learner to certain symbols or signs. Thus the response is an indication that "insight" has occurred and that learning, or a new behavior pattern has emerged. What a reader derives as a result of the perception of a mass of symbols is a function of the meanings he attaches to a particular order of written words. In other words, the reader derives meaning by patterning, or a configuration of the main and supporting ideas of what is read. It would appear, then, that Gestalt psychology seems to explain the reading process, particularly the process of acquiring the author's intended meaning, better than does associational psychology.

Thus, we have the Associationists and the Gestaltists, and each theory seems to contribute to the understanding of the reading process. If I could only enunciate a theoretical model of learning which would explain how a child learns to read and subsequently gains proficiency in the complicated process of obtaining the authors intended meaning, it is doubtful whether you could afford my fee.

I wish that we had sufficient time to examine all of the different approaches that have been in vogue, or are being used by teachers today, in the light of valid research. But, understandably we do not. The remaining task, then, is one which confronts you — you must and should examine your approach to the teaching of beginning reading in the light of carefully controlled research, so that the experiences you organize for the child are those which enhances the complex process of learning to read. Specifically, the question is: Which approach, the Basal, Linguistic, the supplementary Phonic and Basal, the Individualized, the Mae Carden, the Phonovisual, the McCracken, the Joplin, the Spalding, the Montessorian, etc., best embraces research? A cursory examination of research reveals equivocal results. The question "why" looms large. Is it poor research? What about the Hawthorne[8] effect; the Placebo effect? Or, is the teacher, her enthusiasm, skill, and dedication to the task one of the variables that has not been carefully controlled? To me, all this points to the most important element in any program of beginning reading instruction—*the teacher*. If the teacher is the most important element in any program of beginning reading instruction, he/she must assume the burden of understanding both the mechanical and psychological aspects of reading; understand the *laws of learning* as they pertain to the teaching of reading; be articulate in the research concerning different approaches to the teaching of reading; be thoroughly grounded in child development; and be dedicated to the task before her. *No teacher should be satisfied with less.*

Throughout this paper I have mentioned many times "approaches to beginning reading instruction." "What are these approaches?" Two large categories seem to emerge as we examine the literature—the *synthetic approach*, and the *whole-part-whole approach*. To give a clear point of reference, let us examine briefly these two large categories.

A cursory glance at the history of reading instruction in early American days reveals that the synthetic approach was used almost universally. Proponents of this method argue that since words are made up of letters, the child must first learn them. Consequently, we had the so-called ABC or spelling, and the phonics approach. In these methods or approaches, the initial unit of instruction was the name or the sound of the letters of the alphabet. Subsequent research indicated that this over emphasis on word-recogni-

[8]F. G. Roehlisberger and William J. Dickson. *Management and the Worker*. Cambridge: Harvard University Press, 1943, p. 572.

[redacted]
239.

tion techniques produced over-analytical readers. Their oral reading was slow and unenthusiastic with a consequent slow rate of silent reading. An undue amount of inner vocalization or implicit speech was another by-product resulting from these approaches.

Recently, a number of critical publications have attacked beginning reading instruction in America. Their sharpest barbs have been directed against the so-called sight method. The authors of these publications urge a return to the phonic approach. In spite of the fact that the accumulated opinions of reading specialists and the majority of research favors an eclectic approach, confusion, apparently, exists concerning the timing of the initial introduction of phonics. Many of these critics would have teachers introduce phonics prior to the development of a basic sight vocabulary. A small group of authorities, such as Diack[9] argue that whole words do not necessarily constitute the real perceptual units, and that children do not see word wholes. Thus the advocates of the synthetic approach recommend that beginning reading material should contain a preponderance of words that are phonetic in nature.

On the other hand we find a much larger group of experts who embrace the whole-part-whole or analytic-synthetic approach. Much of the research is in their favor. An argument advanced by those in this camp is that since the mature reader perceives words as wholes, the initial instruction in reading should reflect this hypothesis. They place great emphasis upon reading for meaning at the outset, claiming that children have a right to demand meaning from the printed page at the earliest stage of the instructional program. The views of this group are diametrically opposed to that of the former. The whole-part-whole approach favors the development of a small basic sight vocabulary before instruction in phonics is initiated. They favor a strong readiness program, especially those activities related to the development, and refinement of visual and auditory skills. A certain mental development, they also claim, enhances success in the phonics aspect of word recognition.

Thus we have the two large camps, the synthetic approach group, champions of the word elements as the initial unit of instruction; and the whole-part-whole or analytic-synthetic group who place great emphasis upon the elements of the sentence as the initial unit of instruction. Out of these camps has come most current methods or approaches to the teaching of reading.

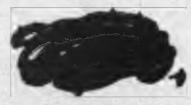
Lest I be branded a maverick, I should indicate my convictions regarding beginning reading instruction. Perhaps the best way would be to describe briefly some of the experiences a hypothetical Joe Brown would have as a first grade entrant.

Joe Brown was six years and six months old when he started to school. An intelligence test revealed that he was an average boy in terms of mental maturation, but a reading readiness test revealed that he needed instruction in some phases of readiness. Miss Smith, his teacher, after a careful evaluation of the results of the reading readiness test, decided that an improvement in the following areas would enhance greatly his chances of success in the beginning reading program. She guided him as he developed visual and auditory skills. She took him on short trips and excursions, thereby increasing his experiential background, and therefore increasing his hearing and speaking vocabulary. These two vocabularies were augumented, also, through stories read to him.

Joe learned to work and play cooperatively with other children, thereby gaining stature emotionally and socially. He helped care for pets, made crude, but useful, toys, helped with various other projects, thus enhancing his ability to do problematic thinking. Orally, he gained increased skill in supplying missing words in a contextual setting. All through these activities Miss Smith nurtured and cultivated his desire to learn to read. An examination of the anecdotal records she kept and her judgments based on observations indicated that Joe was ready for his first lesson.

To effect a smooth transition from reading readiness to the reading of the first pre-primer, Miss Smith used an experience chart. She gathered the group around her and told them that they were going on the

[9]Hunter Diack. *Reading and the Psychology of Perception*. New York: Philosophical Library, Inc., 1960.



240

school bus to a nearby farm. They would see many farm animals, she said, and they should try to remember their names. She told them about a little brook which flowed through the meadow behind the barn, and said if they would look closely they might see some small strange animals. Joe was pleased when she told them they could help her write a story about the trip when they returned.

As soon as they got back from the trip, Miss Smith had each child tell the group about things they had seen. Joe was most enthusiastic about the milking machines, and his contributions to the discussion centered about *milking time.*

Joe and his classmates helped Miss Smith write a story about the trip, each student suggesting a sentence which she printed on the chalkboard. As soon as the story was written, they read it in unison as Miss Smith ran her hand, left to right, under the words they were reading.

The next day Joe and his classmates noticed that their teacher had written the story on a large sheet of paper. Again, Joe and his classmates read the story as Miss Smith ran her hand, left to right, under the words they were reading. Joe noted that strips of cardboard contained printing similar to that on the large chart. He was given a strip and was asked to find a sentence on the chart similar to that on the strip. Joe's classmates thought this fun as each matched sentence for sentence. Joe was given a shorter strip and was asked to find a word on the chart that looked like the word on the strip. Joe was proud when he could find more than one word on the chart that resembled the word on the short strip of cardboard.

Joe and his classmates made many trips, sometimes going to different parts of the building, other times going to the park nearby. Then at other times, Miss Smith would write a story about a trip other children had taken. Soon the children had acquired a basic sight vocabulary that would enable them to read from the first pre-primer.

The big day arrived—the day when Joe would have an opportunity to read in his first real book. Miss Smith related the events in the story to the background of the children; she introduced in a contextual setting a new word they would meet for the first time; she aided them as they established purposes for reading; the children studied the picture above the story; when she noted that they had been properly motivated, each took his turn in reading the story. They exhibited pride and enjoyment in completing successfully a task for which they had been so carefully prepared.

Joe was learning other things, also. He soon learned that his name and Jim's began with the same sound. It was not long before Joe could associate the beginning element of a word with its appropriate sound. Miss Smith noted, also, that Joe and his classmates could blend or fuse compatible sounds into a pronounceable whole. Since Joe had acquired a degree of phonetic readiness, she guided and instructed him in a few of the rudiments of phonics. Thus Joe could unlock the pronunciation of a new word, which was in his speaking or understanding vocabulary, by substituting phonetic elements.

Perhaps you are waiting for me to advise you as to the proper approach to use in beginning reading instruction. My comments may be summed up thusly: Review, if necessary, the laws of learning as they pertain to the teaching of reading; examine carefully the research, noting implications; draw your own conclusions; then, embark upon this approach with the zealousness and dedication that marks the superior teacher. I am sure your children will feel as the little girl when she expressed an attitude in the following poem:

Arithmetic is such a bore,
I cannot stand it any more
But if you'll take my advice,
You'll find that reading's very nice

As for me, I will pitch my tent in the camp of the Basal Reader group, varying the instructional program to suit the needs of the children.

241.

80.

1964.

## B. UPPER ELEMENTARY LEVEL

# 1. Some Promising Innovations in Reading

DOROTHY E. COOKE
New York State Education Department

### 1. The Watts Method of Teaching Reading

LAST SUMMER, a letter addressed to James E. Allen, Jr., Commissioner of Education, was forwarded to me with a check mark before the word *Reply*. This letter was from a young man, a teacher of a special class; he had evolved a program for the teaching of reading that would teach "all" children, youth, and adults to read. He wrote

> The times, I think, demand some revolutionary innovations in many areas of public school instruction. The children . . . need an effective method of learning to read English. The ability to read English is the key to worthwhile achievement in American schools.

Walter Watts outlined the significant features of his method:

1. The method of instruction is easily learned.
2. The cost of instructional materials is low.
3. Anyone with average (or near-average) intelligence will be able to read adult-level English within nine months.
4. The method has built in features that cater to the feelings, desires, and quirks of drop-outs, culturally deprived children, and slow learners.
5. After absence of any length, the course can be satisfactorily continued.

The memo said *Reply*. How could one reply intelligently regarding something you did not know—how could you give advice? There appeared one route to action. Go, *go* to see this innovation.

*Teaching Reading to the Disadvantaged.*

I first visited Mr. Watts' class in October.[1] Seven or eight girls and boys were seated around a long table. Mr. Watts moved around the group. The students took turns in reading duplicated material. At the conclusion of a number of lines, the teacher gave a brief test: he pronounced syllables and the students wrote (spelled) them. Correction was immedi-

[1]The writer is indebted to Walter Watts for his many courtesies during her visits and the material re his plan.

242.

ate, and the same procedure for each group of lines was used.

Dull? These youngsters (12's, 13's, 14's or older) did not think so—*they were learning to read.* They were rewarded (their learnings were reinforced) each time they were tested.

Recently I returned to visit the classes. This time the table group was just completing some work sheets—programed reading on the subject of astronomy. The material contains 50 questions requiring meanings for and recognition of such words as universe, solar, galaxy, earth, center, and planet. I asked for and received the papers. Errors? Yes, a few—but remember the students correct their errors. *The results are fantastic!*

When one group had completed the test, they returned to writing their TV script, *Batman.* The students write for Mr. Watts, and Mr. Watts writes for them.

Mr. Watts and I were in and out of the reading room several times. Always when we returned, the students were busily employed. One group was working with a list of words they had discovered containing the letters *b-e-l.*

From the list that the boys had volunteered to spell, I copied five words: *bellows, belly, belong, below,* and *belt.* Class members were also learning to spell the names of the states and words in the new math.

Mr. Watts said, "You see it works; children teach and *bolster* each other. New? No, it's old

as the sun,
—the moon,
—the stars,
but it works!"

*Reading Is More Than Words.*

As a teacher of special education Mr. Watts was appalled at the number of children who could not read or could read today but not tomorrow. He emphasizes that reading does not succeed with five minutes of that, two minutes of this, and three minutes of something else. Before the school year is over his students will have completed about 35,000 spelling exercises; that is, they will have read and spelled about 35,000 letter combinations, letter combinations that have systematically progressed from the reading of syllables to functional English words. The method, however, is more than the phonetic analysis of words and letter combinations. The students are instructed in sentence structure, word comprehension, functional English expressions, and the oral reading of dialog and narration.

Mr. Watts' associate faculty members have only the most heart-warming praise for the students who enter their regular classes from these groups. One memo from another instructor reached his desk the day I was there. I asked for permission to copy it.

Benjamin's grade was recorded as *B.* Also written on the memo was:

> Ben gave me the list of the Service Squad members today and informed me that he had been appointed captain. You deserve a lot of credit for the development of the boy, and I know you will be happy about his promotion.

By the close of the next school year, it is hoped that this promising innovation will be available to all persons who want to teach the academically retarded to read.

## 2. The Writing Road to Reading

*The Writing Road to Reading (2),* a text, is a guide to an innovation gaining some popularity in New York. The author, Romalda Spaulding, states in the introduction: ". . . and though the method was designed especially for use in the elementary schools, beginning with the first grade, it has proved to be fully successful in high school classrooms and in private schools from pre-school through college age . . . it is a method for teaching the *basic* techniques of the language —accurate speaking, spelling, writing, and reading as one integrated subject."

*The Writing Road to Reading* is to be used to help a child attain certain tools in reading before he begins to read. In the intermediate grades the programs will help older children to sharpen their auditory and visual acuity. One teacher with forty-five years of teaching experience has taught the writing road to reading the past three years. She reports the method as "Marvelous—it gives the children a sense of power."

### 3. Summer School at Oceanside

Somewhat too frequently, summer school programs are for remedial work only; hence, it was a pleasure to discover an excitingly different language arts program at Oceanside, New York. Everyone in this program was enthusiastic—the principal, the instructors, and all the children.

The area of interest for summer school was language arts. Five strands were chosen with which to work: (1) dramatics; (2) choral speaking, public speaking, and debating; (3) reading and reporting; (4) creative writing; and (5) newspapers and magazines.

Each teacher had been selected for his special interest in the strand taught; hence, the organization was departmentalized. Each week's work was called a workshop, and each Monday the students staged "A Studio Presentation" in the auditorium. The Studio Presentation was whatever the members of each workshop chose to present.

The length of the summer school day was from 9 a.m. to 11:30 a.m., with recess period midway in the morning. Roughly, each day included as much time as was usually devoted to the subject during a school week.

The five class groups of children rotated weekly during the summer school so that each group received instruction in each workshop strand.

The children had been selected for the workshops on the basis of their interests in the strands, their accomplishment (reported by teachers and principals), and their ability to learn.

Strand I: *Dramatics*

The week's work in dramatics was designed to initiate the children in the area of expression. The assumption was that all children are born actors and love to perform. It was taken for granted that children look upon first experiences requiring them to appear before a large audience as both frightening and rewarding.

Pantomime and charade activities were employed during the first day of the week's activities. The second day was ad-lib. Two or three children were chosen at one time to discover something unusual about one another—perhaps an untied shoe lace, dirty fingernails, or a "loud" shirt. Then, in impromptu fashion this peculiarity was enacted.

The third day was to teach stage presence. On the fourth day some small production was prepared for the Studio Presentation.

Strand II: *Choral Speaking, Public Speaking and Debating*

The major emphasis in this strand was placed on choral speaking. The children learned to evaluate and use the full-range of their speaking voices.

After the evaluation of voices, the initial work of choral speaking was begun. Next, attention was turned to great speeches of history.

For the final phase short debates were held. While their duration was not very long, the structure of formal debating was adhered to as closely as possible.

Throughout this program, the major emphasis was on helping children to develop an understanding of how to use and project their voices.

Strand III: *Reading and Reporting*

The aim of reading and reporting was one of guiding children to realize more of man's potential. The goal was to help the readers become more sensitive to themselves and others and to sense the subtle causes for human behavior as well as to judge the effects. Since humor seems to be noticeably lacking in leisure reading, materials in this area were also included.

To improve the scope of reading, the program was divided into weekly topics. On the first day of each week, the week's topic was chosen and discussed. Then the group was divided into committees to work in the library in selecting blocks of books necessary for the project decided upon. Next the project was worked on and presented in the Studio Presentation.

Strand IV: *Creative Writing*

Something other than the usual paragraph writing was developed in the creative writing program. First, a feeling for creative expression was fostered through the teacher's reading selections from various anthologies. Rhythm and rhyme in

[redacted] - 244.

poetry were used to get the feeling of meter and beat. Poetry was composed to music; measures were tapped out as the verses were created.

Later other forms of poetry were introduced including the five-line Cinquain and the seventeen-syllable Haiku. Examples of a form were read and enjoyed before trying to create original verses.

### Strand V: *Newspapers and Magazines*

Samples of different newspapers and magazines were displayed. Those read in the homes were discussed. Papers were analyzed as to style, contents, advertising, circulation, and other related factors. Reports were made on the history of newspapers, magazines, and the printing press. The class visited the Long Island Press in Jamaica, New York. Opportunities available in the newspaper field were discussed.

The class was divided into small groups to set up various departments—stories, feature articles, editorials, art, advertisements, jokes, and puzzles. All groups submitted their work to the class editors who selected and edited material to be used. After the material was reviewed by the teacher, it was sent to the office to be typed and run off on the ditto machine.

Five papers, usually four sheets, were published during the five-week session which paralleled the weekly theme of the reading and reporting strand. With appropriate illustrations, the following went to press: *Colonial Gossip, A Look Around the World, Spotlight on Sports, Nature News,* and *Nonsense Unanimous.* A reader is quite startled to read in *Colonial Gossip,* "Stop Obeying Washington!" It is well to remember that the week's issue is *Nonsense Unanimous* when you read the advertisement: "Broken baseball bats! Half price for half a bat. Hurry, hurry! Just $2.59 at JOE'S SPORTS BARN."

At the conclusion of the five-week workshops, the groups held a festival and presented selected parts of their summer accomplishments to parents and friends.

The Oceanside Summer Workshop highlights strands of a language arts program that could profitably be included in the school-year curriculum.

### Summary

I have reported three successful innovations in reading. Innovation is change. The forward-looking educator does not change for change's sake, but rather he experiments and selects the innovation that he can adapt or adopt to meet his present needs.

### REFERENCE

1. Spalding, Romalda B. *The Writing Road to Reading.* New York: Whiteside, Inc., and William Morrow and Co., Revised, 1962.

245.

81.



Vol. 5, 1960

## 7. Building More Effective Reading Programs

## a. Through Storytelling and Creative Dramatics

MURIEL CROSBY

Effective reading programs do more for children than provide them with a battery of skills which makes them efficient readers. Effective reading programs, in harmony with the generally accepted goals of education, exert tremendous influence upon personality development. Increasing maturity in reading and growth toward maturity of personality share two components which foster these educational goals. These two components may be identified as facility in language and emotional satisfaction. Storytelling and creative dramatics are important media in fostering the fullest development of the child as he grows in his ability to read.

Underlying the reading process and a determinant of its success is the element of experience. Reading is the process of making meanings. Meanings are derived through the quality of past experience which the child brings to each new experience. And he incorporates into his being only that from the new experience which his past experience enables him to understand.

Storytelling and creative dramatics combine opportunities to grow in language power in a most happy fashion. In addition, they stimulate emotional growth. Stretching the imagination, exploring one's ideas and feelings, identifying oneself with the finite and infinite worlds of childhood through storytelling and creative dramatics are at one and the same time helping the child to become integrated and providing him with a context of experience which enables him to bring to the symbols of reading understanding, appreciation, and joy which will make books the treasured resource of the well-integrated personality.

### Significant Processes in Storytelling and Creative Dramatics

In storytelling and creative dramatics several important processes are at work which have significant implications for reading development.

- Each demands a reconstruction of experience unique for each child.
- Each requires the interpretation of experience each child has had.
- Each creates a situation in which language is used to convey ideas, information, and feelings.
- Each affords the child an opportunity to explore the world of the imagination and the world of reality and to find that there is a place for both; that each enriches the other.
- Each helps the child discover some of his limitations and strengths.
- Each fosters the development of the individual in a social setting and brings the satisfaction of sharing with others the ideas, information, and feelings of the individual.

Each of these important processes in storytelling and creative dramatics is part and parcel of an effective reading program.

### Reading Skills Fostered Through Storytelling and Creative Dramatics

*Sensitivity to Language.* In storytelling and creative dramatics the child develops a sensitivity to language. The power and beauty of words is one of the most important discoveries a child can make. Understanding and appreciating words,

whether spoken or read, develops power in communicating and provides that "lift" to the spirit which makes the problems encountered in living a challenge rather than a threat.

Sandburg's poem, *Fog*, on "little cat feet" helps us see with new eyes the physical world we take for granted. Brown's poignant story of *The Dead Bird* makes of death the living reality it is. The "white violets" and the "yellow star flowers" which cover the grave of the little dead bird create in the mind pictures which words convey and pave the way for dealing with an experience too deep for childhood. Klein's provocative book, *What Would You Do If*—uses the ideas and phrases found in Dylan Thomas' *Quite Early One Morning* to help the child understand that people act differently in different situations. Each of these choice bits of literature emphasizes the power and beauty of words. They are made for enjoyment through action, the action of reading, listening, retelling and dramatizing. Each enriches experience and meaning.

*Vocabulary Building.* Words play a major role in successful storytelling and in creative dramatics just as they do in reading. Storytelling and creative dramatics provide excellent opportunities for children to learn that words have purposes and that we can make them work for us. Words convey feelings, feelings of beauty, sadness, unhappiness, or happiness. How we say words—the tone, the emphasis, the inflection—changes their meaning. Combining them, too, as Wylie does in "Velvet Shos" creates a mood and a new experience. "White silence" or "soundless space" brings deeper meaning to a first snowfall which may formerly have meant only fun and sleighriding to the child. Planning to tell a story or dramatize it requires the careful choice of words so that precise meanings are conveyed to the audience. In effective reading, the same characteristic of precise meanings is required.

*Thinking.* Successful storytelling and dramatizing require skill in thinking. An understanding of sequential development of an idea or a mood is needed. The selection of significant happenings, choosing the important elements of a plot, comprehending the relationship between cause and effect, are skills essential in storytelling or dramatizing, just as they are in reading.

## What Is Reading?

"Reading is a skill." "Reading is a tool." "Reading is a means of communication." These are true but trite answers to the question: "What is reading?" An effective reading program conceives of learning to read as much more than a skill, a tool, a mastery of a complex symbol for communication. An effective reading program recognizes that every experience a child has is related to the true function of reading, that is, the making of meanings. It recognizes the values of storytelling and creative dramatics in fostering the reading development of a child. It finds in these media opportunities for developing sensitivity to language, an impetus to vocabulary building and a stimulus to the process of thinking. More than this, it comprehends the inter-relationships among reading, storytelling, and dramatizing in fostering self-understanding, the integration of personality, and the ability of the individual to relate to and identify with the world of reality and the world of the spirit and the imagination. Rich, indeed, is the child whose school provides an effective reading program.

247
[redacted]

82.

140.

## B. INTERMEDIATE LEVEL

# 1. Constructive Ways of Grouping for Reading Instruction

DONALD C. CUSHENBERY
University of Omaha

WHAT IS THE best way to group children for reading instruction? We know, for instance, from past experiences that neither children nor parents are misled by the use of such terms as "Crows," "Robins," and "Doves." Not much time elapses before some child inevitably asks, "Are the 'Crows' the dumb ones (or the smart ones)?"

Child psychologists and sophisticated researchers are quick to point out that children have different needs and that pupils cannot be grouped on the basis of acceleration alone. There is no such thing as a purely homogeneous group, since any two persons are sure to have different abilities and aptitudes. Grouping plans, at best, only narrow the range of abilities. This is the basic premise under which any and all grouping plans should operate.

### Guideposts for Grouping

Nearly all authorities agree that grouping of some kind is both desirable and necessary, since the range of reading abilities continues to steadily widen from grade to grade *(2)*.

If we agree that grouping is necessary, what guideposts should we follow in developing our grouping plans? First, any plan must be flexible to allow various children to move from one group to another as the need arises. Two researchers *(1)* recently surveyed this aspect of grouping and found that teachers agreed that mobility was necessary, but they (the teachers) failed to carry out mobility in actual practice. The administrators of the teachers observed that children tended to remain in the same groups throughout the year.

Second, the furniture and other physical aspects of the school must be conducive to groupings. Tables and chairs must be movable so they can be easily arranged for any grouping formation.

Third, children's interests must be taken into account in the grouping procedures. If we expect children to be active participants in any one group, we must analyze their different interests and place them accordingly.

Fourth, and finally, the type of grouping followed should depend on several factors: the enrollment of the class; the teacher and her background and training; and the materials available for the program. In any case, common sense would dictate that there should never be more groups than a teacher can handle at any one time. There is certainly nothing sacred that would dictate that a teacher must have three groups. Two groups may suffice or as many as four groups may be needed.

One significant factor is the selection of a constructive grouping plan. From the literature, it appears that a clear-cut answer to such a decision is yet to come.

Each of the more commonly used plans —the "Joplin Plan," individualized reading, and the more traditional three-group basal materials approach, has strengths and limitations. The purpose of the following discussion is to help the teacher to decide which plan might be most useful to her in light of the items outlined.

### The Joplin Plan

The "Joplin Plan" is an inter-grade plan of grouping of pupils in grades four, five, and six in which each of the pupils is sent to reading level classes on the basis of his reading test scores and the observations of the various teachers. Under this plan a sixth grade child, for example, may be sent to one of several reading classes from the fourth to the eighth grade levels. Basal reading materials are used in each of the classes.

[redacted],

248

If it is properly introduced in a given school system, this plan appears to be a constructive method of grouping for reading instruction. In a recent study of the plan as it is used *in* Joplin *(3)*, I found a number of this plan's significant advantages:

The range of reading achievement levels in the instructional groups in grades four, five, and six with which each Joplin teacher was concerned was reduced materially by the inter-grade ability plan. The number of reading levels that might be expected in a heterogeneous class was reduced as much as 5.6 grades in one school.

All sixteen principals who were interviewed believed that their patrons had a favorable reaction to the plan of grouping chiefly because the pupils were placed at levels where they could succeed.

All of the 100 parents were interviewed and found to be at least slightly familiar with the plan. In general, the group thought the "Joplin Plan" compared very well with other plans and saw few, if any, limitations of it.

All but one of the forty-three teachers interviewed had a favorable reaction to the plan. Twenty-six teachers would like to see this plan of grouping extended to other subject areas. The teachers noted many more advantages than limitations to the plan, since there were eighty-eight responses indicating advantages while only forty responses indicated limitations.

Joplin pupils do a considerable amount of voluntary reading as evidenced by the fact that 60 per cent of all the pupils in the city of Joplin participated in the Missouri State Reading Circle program during a recent school year. The 1,232 pupils who participated in the program read a total of 40,404 books.

The plan may have some limitations in actual use as a grouping procedure for reading instruction. The following statements reflect the teachers' attitudes toward the program as observed during the visits by the investigator in the teachers' classrooms and in the remarks made by teachers during individual interviews.

Seven teachers in the buildings with small enrollments complained that they had to instruct two reading level classes during one reading period. (Teachers in the buildings with large enrollments were assigned only one reading level class during a given reading period.)

Five teachers indicated that the plan may have been responsible for some social problems in their classes. This was especially true when sixth grade boys were placed in the same room with fourth grade children. (The vast majority of the teachers indicated, however, that social problems were virtually non-existent.)

Seven teachers admitted that even with the grouping plan the ability range was still too wide and that more teachers and smaller groups were needed. In contrast to this opinion, a few teachers gave the impression that they felt that their groups were "homegeneous" and that further differentiated instruction was not vital.

There was some question in the mind of the investigator relating to the amount of planning and correlation that took place in a few instances between the reading teacher and the homeroom teacher. This type of plan calls for a sizable amount of correlation and in some instances it may be difficult for busy teachers to confer regularly.

In analyzing both the advantages and limitations of the "Joplin Plan," one can safely state that the procedure may be very profitable and should be carefully considered as one of the outstanding grouping techniques in reading instruction.

### The Individualized Approach

There have been many attempts through the years to develop an instructional program in reading which would reach the individual child and his particular needs. Many teachers have discovered that intra-class and inter-class grouping arrangements have merely narrowed the ability ranges and do not really meet the curricular demands of a given child. Child development authorities have long said that a good reading program should be geared to the pupils' interests and ability levels.

The individualized reading movement was launched several years ago by May Lazar, Jeanette Veatch, and others. Under this program each child constituted a reading group; thus, a class of twenty-five children in effect had twenty-five groups. Each child was asked to select a book on his interest and ability level from

a large stock of books available to each room.

The philosophy of Willard Olson pervaded the individualized reading movement. It is his belief that a child learns best when he is able to seek and select those experiences and tools from his environment which are on his ability level and which interest him. Under this arrangement a given child is not held back or unduly "pushed" by other children who have lesser or greater abilities.

A number of ingredients are necessary for the successful operation of the program: (1) a large supply of books with a wide range in readability, interest, and topics; (2) a resourceful teacher who can plan carefully for the individual conferences and the sequential development of reading skills; and (3) a community whose philosophy allows the teachers to engage in a reading program other than the traditional basal materials approach.

There are several advantages of the individualized approach which make it a constructive method of grouping for reading instruction.

Some studies involving individualized reading and other methods of teaching reading appear to indicate that the children in the individualized programs read many more books than do children in other types of programs.

Children are motivated to read at increasing levels of difficulty, since they are not held back by other children whose abilities are not comparable to theirs.

The teacher has time to work individually with each child and to get to know his real strengths and limitations as well as his interests in and attitudes towards reading.

A number of curriculum specialists have been concerned about the possible danger of lack of sequential development of reading skills in the individualized program. In any case, the program requires an alert teacher who is a careful planner and understands the developmental aspects of the complete reading program. If we agree that it is not possible to have a homogeneous group with more than one person, the individualized approach may be one of our most significant methods of grouping.

## The Basal Materials Approach

The basal materials approach in which the teacher places pupils in three or four groups on the basis of reading ability is the most common grouping procedure used in reading instruction. The children are under the close supervision of the teacher and she is able to assess their reading capabilities both as individuals and as members of the group. The good teacher moves pupils from group to group according to each child's progress in the total reading program. Although this approach is most common, some teachers have been guilty of not moving children from group to group as their needs arise. All too often Henry is dubbed a member of group three today, tomorrow, and forever and, irrespective of his accomplishments, is not allowed to move to a higher group. Properly used, the basal materials intragrade grouping method will continue to be one of the most effective means of grouping pupils for reading instruction.

## Summary

Grouping for reading is necessary to provide for the wide range of reading abilities to be found in the average classroom. Several grouping plans have been used and advocated, but all of them have advantages and limitations. A study should be made of the school's educational philosophy, its students, and the general make-up of the community before a grouping plan is initiated. A grouping program that is successful in one community may be unsuccessful in another community. This should be considered seriously before any one grouping plan is finally adopted.

### REFERENCES

1. Austin, Mary C. and Morrison, Coleman. *The First R: The Harvard Report on Reading in Elementary Schools.* New York: The Macmillan Company, 1963, Chapter 3.
2. Bond, Guy L. and Tinker, Miles A. *Reading Difficulties: Their Diagnosis and Correction.* New York: Appleton-Century-Crofts, Inc., 1957, Chapter 3.
3. Cushenbery, Donald C. "The Plan of Grouping for Reading Instruction As Used in Joplin, Missouri." Unpublished doctoral dissertation, University of Missouri, 1964.

250

83.

Vol. 8, 63

## 4. Bringing Readers and Books Together Successfully Through Storytelling

166.

RICHARD L. DARLING

Storytelling has probably served more purposes than any other art. In primitive times it was the vehicle for preserving history. It was used to teach moral ideas and church doctrine to adults in medieval times. It provided literary experiences for the illiterate masses for thousands of years, and does so in many societies today. During the last century Sunday schools and elementary schools began to take over the art of storytelling. In the Sunday school the storyteller attempted to use his art for teaching moral lessons, while the elementary school teacher too often told stories to teach factual material, in science, for example. In our own time we have seen a great revival of this ancient art. With this revival has come a school of "purism," which has insisted that the story should be told for its own sake, that no more should be expected from storytelling than enjoyment of a good story.

Perhaps this concept is the right one. Certainly this position is attractive to the storyteller who has heard stories destroyed by the attempt to wring from them more than they intend. But it would be a great loss if we ignored the potential of storytelling to introduce children to literature. A time-honored function of storytelling has been to provide literary experiences. In an age when no one could read, the experience had to end there. But for children today, storytelling not only can be a rich experience in itself, but it also may be an effective gate to further delight in books and reading. However, storytelling which introduces children to books, inviting them to read further after the story is finished, should be just as skillful as storytelling intended to be a complete experience in itself. If storytelling is to be worthwhile it must be done well. It is only from good storytelling that a child will turn to books with more stories like the one he has just heard.



The selection of stories must be made carefully. Few storytellers are comfortable with all types of stories. You must choose stories with which you feel at ease. Perhaps you will be at your best with a humorous story. You may be more comfortable with stories of excitement, and high adventure, with the romance of Greek myth, the wild imagination of an Irish folk tale, or the stately cadences of epic and saga.

Preparation of the story must receive equal care. Study your story carefully, reading and rereading it, until the sequence of events has arranged itself in order in your memory. Then you begin to rebuild the story in your own words, practicing it aloud, and building the story anew. As you gain assurance you are able to perfect your tale, determining appropriate pacing for each section of a story, planning expression and gesture (always underplayed in the storyteller's art) experimenting to determine where a pause will heighten the effect of a story.

The storyteller does not have a big bag of tricks, but those artifices he has must be used well. Storytelling and acting are a world apart. The storyteller has no footlights, no colored spotlights. He does not have the secure protection of a proscenium arch, nor 30 feet between the stage apron and the first row of seats. Acting is for large audiences in vast theaters, where gestures and expression, the voice and the emotions it expresses, must project to the furthest row of the highest balcony. In acting much of the drama of the story depends upon the artifices of the actor. In storytelling, however, the drama must lie in the inherent dramatic power of the story. The storyteller is the vehicle through which the story is expressed, and his presentation should be unobtrusive and subtle and without antics to come between the story and the listener.

By mastering the art of storytelling we can bring to children whole worlds of books that we might not otherwise arouse their interest in. Several helpful books provide suggestions for learning to tell stories: Marie L. Shedlock's *The Art of the Story-Teller* is a fine older book, a classic in the field, which was reissued with a new bibliography by Dover Publications in 1951. Ruth Sawyer's *The Way of the Storyteller,* published by Viking Press is another good book on this subject. It has an especially useful chapter on the use of the voice. *Storytelling* by Ruth Tooze, published by Prentice-Hall, Inc., is a more recent book that has proved to be useful.

Storytelling may be done effectively both in the classroom and in the library. Books should be brought to the classroom, however, so that they can be given to the children immediately after the story while their interest is high. In the library the books will be available. Children should be encouraged to select them for home reading when the story is finished.

Knowing how to tell stories, we are at least halfway toward our goal. The other half of the way must be lined with books. Storytelling, however, is not a *deus ex machina* to lead children to all books. Storytelling has its own appropriate literature and it is with this literature that storytelling can serve as a catalyst.

Since storytelling is a folk art historically and in its simplicity, most storytellers have found folk literature most appropriate for telling. The folk tales, collected first in Europe by the Grimm brothers and others, and increasingly from all countries of the world, provide the basic material for storytellers. Many of the best-known and best-loved of children's stories are a part of this rich heritage. "The Three Billy Goats Gruff," from Norway, "Puss in Boots," from France, "Hansel and Gretel," from Germany, "Tom Tit Tot," from England, "The Tar Baby," from our own South, have been joined in recent years, by "Two of Everything," from China, "Kantchil's Lime Pit," from Indonesia, and the Anansi stories from West Africa, among children's favorites.

251.

Today we have hundreds of excellent collections of folk tales for children to read. Some useful general collections with tales from several countries are May Hill Arbuthnot's *Time for Fairy Tales, Old and New* (Scott, Foresman, 1952), August Baker's *The Talking Tree* (Lippincott, 1955), and Harold Courlander's *Ride With the Sun* (Whittlesey House, 1955), which include stories from each country which was then a member of the United Nations. No brief list could do justice to the wealth of available titles of general collections, nor to the larger number of books of stories from one country. The books on storytelling list useful collections. Others can be found through standard book selection aids. May Hill Arbuthnot's *Children and Books* (Scott, Foresman, 1957) has excellent lists, as well as a useful chapter on storytelling.

By choosing your storytelling selection from books in your school library you can encourage the children to read from the same books independently. No one can say exactly at what age boys and girls will begin reading folk tales, but they enjoy hearing them when they are in kindergarten, and by third or fourth grade they are reading every volume they can find. Elementary school librarians have watched fourth-grade children, after a storytelling session, check out every collection of folk tales the library owned, and then come back the same week looking for more.

The folk tales offer great variety to both the storyteller and to children, but the range of traditional oral literature provides even more. The Greek and Norse myths provide stories full of the romance of noble deeds and heroic figures. Children delight in the imagination that explains the constellations in the heavens, the round of the seasons, or the world's troubles in the form of stories. After hearing the storyteller relate the tale of Ceres and Persephone, or The Death of Baldur, they will read eagerly Sally Benson's *Stories of the Gods and Heroes,* Catherine Sellew's *Adventures With the Gods,* and Dorothy Hosford's *Thunder of the Gods.*

When the storyteller has gained greater confidence, he will want to tell episodes from children's versions of the great Greek epics or the lesser known but equally exciting Norse sagas. From the telling of the story of Ulysses and the Cyclops, both boys and girls, but especially boys, will read eagerly in Church's *The Odyssey of Homer* or Colum's *Adventures of Odysseus and the Tale of Troy,* the stories of the brave deeds and fierce battles on the plains before Troy or of Ulysses' and his men's narrow escape from the monsters, Scylla and Charybdis.

Storytelling can encourage children to read folk literature and the epics that so fully use folk materials. This material has been preserved from an oral tradition. The studied literary work of modern authors, however, should be presented to children in other ways, with book talks, or by reading aloud. Literature that should be presented as the author wrote it should not be included in the repertory.

The only problem may be that the school will not have enough books to fill the demands of the children. If the storyteller is to bring children and books together, he must have a well-stocked elementary school library to provide the volumes of stories boys and girls will demand. The American Association of School Librarians, in its standards for school libraries, recommends a minimum collection of 6,000 to 10,000 books of all kinds for the libraries of schools with 200 to 999 pupils, and ten books per pupil in larger schools. With school libraries that meet these standards, it is possible to provide children with the quantity and variety of collections of folklore for an effective reading program.

252.

Vol. 9, 84. 84.

## 2. Partners in Teaching Reading: The Classroom Teacher and the Librarian

196,

RACHEL W. DEANGELO

WHERE the classroom teacher and librarian work together as partners, the elementary school library becomes the very heart of the reading program. A library well-stocked with attractive books on all subjects and all levels of reading difficulty, well organized, attractively arranged, becomes an extension of the classroom, and library activities become an extension of the reading program. In a library providing the books and proper stimulation and guidance, children learn to love to read, to make wise and wide reading choices, to grow in appreciation of good literature, and to develop effective reading and study skills. Five specific activities in the library program contribute to the development of reading taste and skill: (1) reading guidance activities, (2) curriculum enrichment activities, (3) listening and viewing activities, (4) instruction and practice in library skills and research, and (5) reading aloud.

*Reading guidance activities.* Even before the child enters school, he profits from reading guidance at the public library picture book hour. The school librarian enters the picture at the time of kindergarten registration. While the mothers are in conference with the teacher, the children listen to a favorite story in the library and are introduced to this wonderful "magic room." Later, as kindergartners, they select their own books to take home. Often letters co-signed by the teacher and the librarian (and endorsed by the principal) are sent to parents asking that they read the library books to their children. Later the letters ask the parents to let their children read to them. Notes to the teacher commenting on the children's reading are shared with the class and arouse great interest in the books read at home. A variety of activities have been used successfully with older children to stimulate reading, including library sponsored book clubs, book review bulletins by students, dramatizations, book quizzes, and book discussion.



their understandings, and books which children might not seek out themselves. What a rare opportunity for both teacher and librarian to introduce these books and to share in the joyful experience of reading aloud, which creates a bond between listener and reader and makes a lasting impression on children.

*Curriculum enrichment activities.* The librarian provides the necessary materials to support and enrich each subject, then, working with the teacher, extends the reading program beyond the language arts into every area of the curriculum. In one school, interest in American folk heroes introduced by the librarian to a sixth grade class radiated throughout the school and resulted in wide reading for projects in art, music, and social studies, and culminated in as assembly program in which each grade participated.

*Listening and viewing activities.* The alert teacher who recognizes the value of quality films, filmstrips, and recordings in the reading program has a strong ally in the librarian. She, too, accepts these media as an integral part of a rich and varied library collection. Watching *Little Toot* or *And Now Miguel* on film is but another way to introduce children effectively to good books and to develop their reading taste, as is the reliving of *Treasure Island* or the epic of *King Arthur* through excellent recordings by master storytellers.

*Instruction and practice in library skills and research.* Library research begins when the child goes in search of his first answer to a specific question. Be it search or research, the habit is forming; the skill is beginning. Students need the depth and breadth of materials provided by the library, and the classroom motivation for both instruction and practice in the use of these materials. Again, teacher and librarian act as partners in the reading program.

*Reading aloud.* It takes librarians and classroom teachers who know books and love books, who read widely themselves, to develop in children a love of reading, a discriminating taste, and the reading habit. "We cannot teach others to fly unless our own souls have sought the height." The librarian knows a host of good books for "reading aloud" at each grade level—books with a special literary quality, books that stretch the minds and touch the hearts of boys and girls, books that broaden their horizons and deepen

253.

85.



## 2. Why an Eclectic Approach in Reading Instruction?

EMERALD DECHANT
Fort Hays Kansas State College

ECLECTICISM IS GENERALLY defined as "the selection and orderly combination of compatible features from diverse sources," the combination of valid elements from various theories into an harmonious whole. It is definitely not syncretism nor an unsystematic and uncritical combination of data. Unfortunately, even the most charitable evaluation of the actual situation in the teaching of reading forces us to conclude that few teachers have arrived at such a synthesis. Few teachers can honestly say that the approach which they are using is a systematic and orderly synthesis of data from various theories. And yet, eclecticism of some kind seems necessary.

We thus propose an eclecticism for the teacher that encourages him to select from the great variety of approaches that one approach, or combination of approaches, which best meets the needs of the pupil. We propose that the selection of method should be based on the individual differences of the learners. Perhaps, instead of the word *eclecticism,* we should borrow the phrase of Elizabeth Vasquez, a principal at Homestead School in Garden City, New York. She speaks an "All-Method Method" of teaching reading.

### The Rationale for Eclecticism

We believe eclecticism makes sense because:

1. Children do in fact learn to read through a variety of approaches.
2. Children are different.
3. Teachers are different.

Let's look at each of these.

As one scans the literature, listens to experts in the field, or observes practices in the classroom, he is dazzled by the bewildering array of methods of teaching reading. Each method is proposed as an answer to a reading problem; perhaps not *the* answer, but nevertheless an answer. There is not one advocate of a method who submits that his or her method does not work or who is unable to adduce evidence as to its effectiveness. And the fact is that children have become readers, indeed good readers, through analytic, synthetic, or combination approaches.

Thus, unless one is willing to call every researcher or practitioner who claims to have success with a given method a cheat, one has to accept that success may come by many paths. Since many different roads can and do eventually lead to reading proficiency, we are unwilling to accept that only one method, one approach, or one technique is successful with all children. We cannot agree with Terman and Walcutt that with their method all children learn to read. We cannot agree with Delacato that only his method is without its poor readers. We cannot agree with Sullivan that his programed learning approach will eliminate all reading failures. We simply do not have sufficient evidence in support of one approach that warrants universal allegiance to it as the supposedly best or only way of teaching reading. On the other hand, we must admit that Terman and Walcutt's, Delacato's, and Sullivan's methods have worked with some children.

A second argument for eclecticism is the fact that children are different and learn differently. It seems unwise therefore to standardize or communize reading method. If children were all alike, we might look for the method. Indeed, we would have found it long ago. But, the simple fact is that children are different from one another intellectually, physically, emotionally, socially, and perceptually, and they seem to be differentiated on the basis of the method that is beneficial to them.

We have gone through a period in which there has been frequent debate over phonics. Today, this debate has generally subsided, and the reason for this is that we have come to accept the fact that children react differently perceptually. Each child reacts to a "perceptual whole," but for some the perceptual whole is a word; for others, a part of the word. The whole child reacts, but he is not necessarily best stimulated holistically. What constitutes a whole is different from individual to individual and is determined by the meaningfulness of that

[redacted]. 254.

unit and the ability, experiences, purposes, maturation, and perceptual skill of the learner.

The really successful teacher is one who has developed an extraordinary sensitivity to the differences among children in the classroom and makes adjustments for them.

Teacher differences are a third reason for eclecticism. The teacher's preferred mode of reaction may be as significant as the method of teaching that he is using. Two equally competent teachers may not be able to use the same method with equal effectiveness. It may be as significant in the education of future teachers (and in your own personal success in teaching) that you and prospective teachers develop competency in method in line with your own natural style of responding and communicating. Some one of you, because of your personal make-up may do a beautiful job with individualized reading; others, because of their personal characteristics, may almost be doomed to failure.

The teacher does make a difference. On the days when we don't feel well students often seem to be doing the poorest, are ill-mannered, and the least cooperative. They seem the smartest on the days when we feel best. Of course, on those days we feel that the world is lucky to have us in it and that our method is the best there is.

## Consequences of Eclecticism

What does the acceptance af eclecticism imply? It implies, among other things:

1. That the teacher understands the differences in children;
2. That the teacher become familiar with a host of reading methods.

## Knowing the Pupil

The effectiveness of the teacher with a given method depends to a great degree on his understanding of the pupil. This differential in knowledge of the learner quite frequently accounts for the fact that one teacher is successful with a given method and another teacher fails with it. A method of teaching is adequate only if the teacher knows enough about the child so that he can adapt the method to the needs of a specific child. In addition to an understanding of the pupil's maturational, experiential, intellectual, neural, physical, social, emotional, motivational, language, and sensory characteristics, knowing the pupil means knowing his preferred mode of learning. Identification of the child's mode of learning may well be the end goal of all classroom diagnosis.

## The Pupil's Mode of Learning

As early as 1860, Fechner noted differences in imagery. In the 1880's Calton found that scientific men have feeble powers of visual representation. In 1886 Binet described an auditory type and a motor, or kinesthetic type. He noted that the latter remember a "drawing better when they have followed the outlines with their finger." William James noted of himself that he was a poor visualizer and that he seldom could call to mind even a single letter of the alphabet in purely retinal terms. He noted that he must trace the letter by running his mental eye over its contour.

Children likewise differ in auditory, visual, and motor imagery. Some children simply cannot rely on a visual image; others rarely depend on auditory imagery. When the latter read a word, they may see the word; the former hear the word; and those with motor imagery feel the word. They recognize the word as one they traced previously.

Furthermore, the maturational pattern for each of those sensory modalities may fluctuate from one to another. A pupil may develop slowly in one, more rapidly in another. Others mature slowly in all despite good intellectual ability.

Research tends to indicate that a person's preferred mode may be determined culturally, experimentally, or constitutionally. Frank Riesman, in the *Culturally Deprived Child*, suggests that the culturally-deprived child is physically oriented and learns better through aural learning. Walters and Kosowski[1] have found that difficulties in symbolic learning may be a function of reduced inability to attend to visual stimuli resulting from monotonous

[1]Richard L. Walters and Irene Kosowski, "Symbolic Learning and Reading Retardation," *Journal of Consulting Psychology*, 27 (February 1963), 75-82.

255.

stimuli. There is evidence also that continued use of one modality for learning may make the use of other modalities of limited value.

Preschool children can learn to recognize geometric shapes much more readily if they feel the cutout forms. Young children learn to deal with the environment by "saying what they think," and we have found that progress in spelling is aided by saying the word to oneself. Slow learners tend to learn best through kinesthetic approaches; brilliant youngsters, through visual approaches. Listening is generally preferred over reading as a medium for learning up to about the fifth grade.

Wepman[2] notes that auditory training to correct articulatory inaccuracies is not too useful until auditory discriminatory abilities have matured. This occurs sometime after the age of eight. He thus recommends that we emphasize in early learning experiences the modality that is preferred while training the underdeveloped or impaired pathway separately.

He adds that intermodal transfer is necessary in learning:

> Thus, a child who sees the printed word "dog" must evoke not only previous visual stimuli of printed forms but life forms as well; he must shift from the visual input to previously received and stored auditory patterns making up the word "dog" and perhaps to the tactile sensations of petting a dog, of his smell and even his frisky movements, before the printed word has full meaning for him. Without this shift to other modal learning, little integrative meaning may be attached to the printed word. Intermodal transfer, then, seems to be vital to the learning act. Katz and Deutsch,[3] in an extensive study of good and poor readers on a variety of perceptual tasks, concluded in part that "poor reading is associated with difficulties in shifting from one sensory mode to another (p. 30).

Since everyone is truly a unique learner, it seems reasonable to introduce materials through the pupil's stronger sense modality. It would seem reasonable to utilize instructional materials which are congruent with each learner's particular strengths in perception, imagery, and recall.

The pupil's preferred sensory mode of learning may be identified by using the Mill's *Learning Methods Test.* The Learning Rate Test of the *Durrell Analysis of Reading Difficulty* might be used to identify the child who will profit from a visual emphasis. Other recent tests with possibilities in this area are the *Frostig Developmental Test of Visual Perception,* the *Illinois Test of Psycholinguistic Abilities,* the *Chicago Test of Visual Discrimination,* the *Roswell-Chall Auditory Blending Test,* and the *Wepman Auditory Discrimination Test.*

We all realize that, other things in the educational situation being equal, the child must have reached a more advanced developmental stage to succeed in reading in a class of 36 pupils than in a class of 12 or 13 pupils. He will need greater maturity. The same might be said of reading method. A child might not be ready for reading—he might not be mature enough—because we are asking him to use a sensory modality which is less developed than another. Some children are more ready to learn through a phonic approach; and still others through a visual approach; and still others through a kinesthetic approach. The fact that children have different sensory strengths suggests that one-method teaching is questionable. We need to identify the child's differential ability to learn by ear, eye, or touch before choosing a given reading method to use with him.

## Knowledge of a Variety of Methods

A second major consequence of accepting a position of eclecticism is a need to become familiar with a great variety of methods of teaching reading.

The teacher needs to ask himself: What method works best with Jane, who has completed the readiness program, but still cannot identify rhyming words? What method works best with Dick, who has an abnormal amount of difficulty with similar-appearing words such as *them* and *then*? What method works best with the pupil who does word-by-word reading, who constantly back-tracks, or who blocks when he meets certain words? What

[2]Joseph M. Wepman, "The Perceptual Basis for Learning," *Meeting Individual Differences in Reading.* Ed. by H. Alan Robinson, Chicago: University of Chicago Press, 1964, 25-33.

[3]Phyllis Katz and Martin Deutsch, Visual and Auditory Efficiency and Its Relationship to Reading in Children. Cooperative Research Project No. 1099 Washington, D. C.: Office of Education, 1963, 45.

256.
[redacted].

method works best with the pupil who constantly reverses words, who cannot blend sounds or letters, or who cannot name letters?

These are not serious problems, but these innocuous difficulties tend to snowball. Most remedial cases are probably instances of an accumulation of unmet reading needs. The teacher of reading needs to be able to provide proper remediation all along the way. This means he needs to know what is best for a given child. It is not enough to know *a* method of teaching. It is necessary to know *the* method that is best for a *given* child. This means he must become familiar with a host of methods.

Teachers with the most novel approaches to teaching reading claim to be unusually successful with their method. It may be, and indeed often is, that these teachers work harder or are more enthusiastic than the average teacher. But, it may also be true that a novel approach may be especially effective with some child because it meets his need in a special way. There are methods, or specific teaching approaches, that make a world of difference for the *individual* child. One child benefits from one type of instruction, another may not.

There probably is some good in every approach. I don't know of any method that may not be useful with *some* child. The Initial Teaching Alphabet (i|t|a) approach, originated by Pitman, has already demonstrated its usefulness by simplifying the alphabet. It is interesting to note that systems similar to the i|t|a began as early as 1551, and by 1845 there were 26 phonetic alphabets, including those of Benjamin Franklin and Brigham Young. Davis' system, as propounded in *k-a-t speltz cat,* the Diacritical Marking System of Fry, and Gattegno's Color approach may each help some child to learn and remember better.

A child who has difficulty associating meaning with what is read may be especially helped by a linguistic approach such as Lefevre's.[4] It may help the reader to translate the printed text into the writer's intonation pattern. Another child may be aided by linguistic approaches such as those proposed by Bloomfield, Soffietti, Daniels and Diack, or Fries, which stress the phonetic consistencies of the language.

The teaching machine approach, originally proposed by Pressey, and programed learning approaches in general, may help a child who has special need for a detailed, sequential presentation of learning tasks and a need for confirmation of his progress.

Another child, who has a special need to be interested in what he is reading, may learn best through the language-experience approach, originally suggested some sixty years ago by Flora F. Fooke at the Chicago Institute.

Some children may not learn readily because certain internal events have gone awry. We cannot emphasize enough that learning, and indeed reading, occurs in the brain. Children think and learn differently because of differences in neural development.

Reading difficulties are thus said to be caused by damage to, or dysfunction of, certain localized areas of the brain such as the angular gyrus (Hinshelwood, 1917), the frontal gyrus (Wernike, 1947), or the parietal and parietal-occipital areas (*Rabinovich,* 1959). Penfield and Roberts (1959) suggest that the difficulty is in the connection between the cortical speech mechanism and the brain stem system. Some suggested that reading deficiency results from underdevelopment of directional function (Hermann, 1959) from psychological distrubances, especially of an unconscious or subconscious nature (Jarvis, 1958, Namnum and Prelinger, 1961, Walters, Van Loan and Crofts, 1961), from disturbed brain wave activity (Kennard, Rabinovitch, and Wexler, 1952), from prenatal and paranatal factors (Kawi and Psasmanich, 1959) from ocular inefficiency (Leton, 1962), from delayed development of the parietal lobes (Drew, 1956), from a slowness of neuromuscular maturation (Eustis, 1947), or from minimal brain injury (Strauss and Lehtinen, 1947). The Smith's Synaptic Transmission Model suggests a chemical basis for reading deficiency, and Delacato, following the early lead of Orton, emphasizes domi-

[4]Carl A. Lefevre, "A Comprehensive Linguistic Approach to Reading." *Elementary English,* 42 (October 1965), 651-659.

257.

nance factors.

Each of these people suggests that neurological factors are key factors in language and reading development. Delacato notes that the basic difference between man and the animal world is that man has achieved cortical dominance rather than cellular quantity. He probably summarizes the thinking of this group of specialists when he notes that "peripheral activity . . . such as vision, dexterity, skills, *phonetics, various reading techniques,* are meaningless in remediation if the neurological organization is defective."

## Summary

When the teacher accepts the student, when he respects the individuality of the pupil, shows understanding and empathy, has deep faith in the improvableness of the pupil, and identifies the pupil's area of confidence, we find that his pupils are generally successful. We also know what a great effect a teacher can have if he is an interested and an interesting teacher. Because learning occurs in a relationship, the teacher's personality and his ability to enlist the child's active cooperation are often more important than the specific method used.

We propose that another key attitude of the successful teacher is a willingness to change his method to fit the learner's preferred mode of learning. Success in teaching is built on a willingness to be eclectic. We don't give much credence to a physician who seeks to alleviate all ailments with aspirin. Is the aspirin man less scientific than the one-method teacher?

Eclecticism is not easy, but I don't think that we can return to the "good old days," when we were content to dish out the same thing to all children. The greatest challenge in education today is the individualization of instruction. There is nothing quite so unequal as dishing out the same education to unequals. We need to personalize education. We need to be eclectic in the true sense of the word.

258.

86.



*1. Has the research been conducted for a sufficient length of time to reveal any effects of i.t.a.?*

Several of the people who conducted experiments in the first-grade studies sponsored by the U. S. Office of Education Cooperative Research Project published conclusions after less than one year. This period is too brief a time to evaluate a program such as i.t.a. Gans *(5)* was quite right in 1964 in warning that, "The i.t.a. approach to reading is at its beginning. As yet there are not enough results from the experimentation going on to warrant the extravagant claims that are being made for it. Only broad and longitudinal evaluation which yields reliable conclusions can determine its permanent place in the teaching of reading." I would add that not only are the extravagant claims (which I have frequently deplored) not warranted but neither is the unthinking dismissal of i.t.a. after a few months of trial warranted.

In Britain we were first to begin research on this innovation in reading; and now that we have been conducting research on i.t.a. for nearly five years, I believe that we are in a position to draw some valid and reliable conclusions. But I must agree that Gans' warning against too hasty conclusions does still apply to the research reports so far available from American research on i.t.a.

*2. Is the research scientifically controlled?*

Many of the experiments currently being conducted with i.t.a. have a serious fault in their design. In comparing one approach with another it is essential to make sure that all major factors in reading are controlled except the one you are investigating. The contrast to be made is between i.t.a. and traditional orthography (t.o.). Therefore, in the i.t.a. classes and the t.o. classes in a research project everything else of significance in reading should be as nearly the same as possible. But, in almost all the i.t.a. researches currently being conducted one major variable has not been equated in the i t.a. and t.o. classes. This variable is the actual language content of the reading program. For example, Fry *(4)* compared i.t.a. with his Diacritical Marking System (D.M.S.) and the Sheldon basal reader

## 2. Conflicts and Confusions in i.t.a. Experiments

JOHN DOWNING
University of London
Institute of Education

**Research on i.t.a.**

READING TEACHERS who are interested in the Initial Teaching Alphabet (i.t.a.) should note that by 1966 numerous different research projects involving i.t.a. were in progress and it is important to discriminate between them and to compare them critically. For example, educators should ask these questions of any i.t.a. research project before accepting its supposed findings:

[redacted].

259

series in t.o. The D.M.S. materials were the Sheldon Readers with the print altered according to the D.M.S., but they were not identical to the t.o. series, because they were sub-standard in their lack of color in the illustrations. What is much worse, the i.t.a. materials were not the Sheldon Readers printed in i.t.a. but an entirely different basal series by Mazurkiewicz and Tanyzer *(9)*. Thus, not only were the printing systems different but also that major factor—the content of the teaching materials—was varied, too; and, therefore, one cannot tell whether any differences that are found (or any failures to find differences) are caused by the print variable or by the materials variable.

In all the British experiments on i.t.a. the same basal series (Janet and John by O'Donnell and Munro *(10)*) has been used in both the i.t.a. and the t.o. classes. Both versions—i.t.a. and t.o.—were identical in format and context, thus ensuring the same quality of production for the experimental and control groups. Therefore, any differences found can be attributed with greater certainty to the change of alphabet. This plan is being followed also by Robinson *(12)*. In her study she is using i.t.a. and t.o. editions of the Scott, Foresman basal series which are identical apart from the change of alphabet. Taylor *(13)* at the University of Ibadan in Nigeria is also using this scientific approach of having an identical series in i.t.a. and t.o. for the experimental and control groups.

Most other studies, however, have failed to control this variable and it will, therefore, necessarily be difficult to evaluate the effects of i.t.a. as compared with t.o. in such "experiments."

*3. What went into the computor?*

Whenever a research is reported in terms of a very large number of pupils and with very complex treatments of the data, educators should be even *more* cautious in their approach to generalized conclusions because there is a danger that the size of the sample or the impressiveness of the statistical operations will divert attention from what is far more important—what exactly was done by the teachers in their classrooms and what exactly were the experiences of the students. It must always be remembered that the value of the statistical end-product of research depends most on *what was put in* by way of educational treatment.

*4. Are the criteria of evaluation relevant?*

Several i.t.a. research reports published recently have used irrelevant criteria for evaluating i.t.a. They have failed to understand the whole nature and purpose of i.t.a.

I.t.a. is what linguists call a "writing-system." That does not mean a system for teaching writing. What it does mean is a system for writing (or printing) the spoken language, i.e., a system of "ink" for coding the system of "air." Because i.t.a. is a writing-system, the only legitimate comparison that can be made in evaluating i.t.a. is between the i.t.a. writing-system and some other writing-system for English (e.g., t.o.).

Hahn *(7)*, for example, compared i.t.a. with the Language-Experience approach and the basal-reader approach. But this comparison is not meaningful because you can teach the Language-Experience approach using the i.t.a. writing-system or the t.o. writing-system and you can use basal readers printed in i.t.a. or printed in t.o.

Also, to find out the effects of i.t.a. you not only have to teach the i.t.a. students in i.t.a. but you have to *test them in i.t.a.* The only scientific way to tell whether i.t.a. prevents word-recognition difficulties is to teach an i.t.a. group and a t.o. group using the same sample of the English language for their basal training and then to test them on an identical sample of the English language printed in i.t.a. for the i.t.a. students and in t.o. for the t.o. students. Of course we want to know about transfer later and *then* we must test i.t.a. students in t.o., but the really important issue is completely obscured if i.t.a. students in the beginning stage are tested in a system which they have not been learning.

*5. Was it really i.t.a. that was tested?*

Educators should also be cautious in accepting the label "i.t.a." as describing what has been taught in some of these projects. Were the teachers adequately trained? Were the classes fully equipped with i.t.a. materials? i.t.a. teaching ap-

260.

paratus? i.t.a. library books? (Some idea of the wide range of i.t.a. books actually available from over 30 different publishers can be obtained by studying the complete list of *i.t.a. Books for the Teacher and the Child* published by the National Book League, 7 Albermarle Street, London, W.1., England.) Did the teachers use i.t.a. long enough? These are some of the questions I would raise about several of the "i.t.a. experiments" that have been described recently.

### Early Word-Recognition Difficulties Are Reduced by i.t.a.

On the basis of more than four years of careful scientific research and experimentation with i.t.a. in British schools, it may now be concluded with certainty that in comparison with the simplified and regularised i.t.a. system t.o. is an important source of difficulty in the beginning stages of learning to read and write in English-speaking countries. Our research shows quite conclusively that t.o. as compared with i.t.a. under parallel normal classroom conditions is a serious handicap to teachers and children. The complexity and irregularity of t.o.

1. causes slower progress through the basal-reader series,
2. reduces word-recognition attainments to between about one third or one half of what they can be with a more simple and more regular system such as i.t.a., and
3. severely limits their written vocabulary and their creative abilities in written composition.

I have given a complete description of i.t.a. previously (Downing, 2), but, briefly, the superior effects of i.t.a., taken as an example of a simplified and regularised system for English, are due to

a. the reduction in the volume of learning
   (i) of whole-word configurations in the Look-Say aspect (e.g. *doll* only not *DOLL, Doll,* etc.).
   (ii) of characterisations of sounds; e.g., œ only as in tœ, not *o, ew, ow, ough, oa, o.e.,* etc. *no, sew, flow, though, boat, note.*
b. the greater regularity of the i.t.a. code:
   (i) i.t.a.'s characters generally (but not absolutely invariably) represent only one sound, e.g., *o* usually represents the vowel sound common to *on, off, hot, dog, lock,* etc., and not quite different sounds as in t.o., e.g., *done, one, bone, women,* etc.
   (ii) i.t.a. removes the grouping operation necessary in such words as *chip, chop, chat,* by linking the *c* and *h* together in the print. In words such as *bone, vote, dome,* the linking of *e* to *o* reduces the complexity to an even more important extent.

The significance of the difference between i.t.a. and t.o. in the beginning stages of reading and writing is great and cannot be ignored. The full details of the results of the British research on i.t.a. will show this variation in a major report (see Downing, 3) which is now being printed.

### The Transfer-of-Learning from i.t.a. to t.o.

However, although i.t.a. has proved so successful in preventing word-recognition difficulties in beginning reading, it should be noted that I have expressed this finding as a criticism of t.o. and not as an endorsement of i.t.a. The important point to understand clearly about our research in Britain is that it was designed from the beginning as a basic investigation of the influence of t.o. on the education of our boys and girls. The i.t.a. is only one example of how to simplify and regularize English orthography. Now that we know that the way in which English is written or printed really makes a difference in the teaching of reading, clearly, "the sky's the limit." Also, one must recognize that there are other ways of circumventing the difficulties of t.o. without changing English spelling. For instance, one can use t.o. but rigorously control the vocabulary to avoid using any words which have complexities or irregularities (e.g., Bloomfield and Barnhart, *(1)*), or one can use color as a secondary coding device (e.g., Gattegno, *(6)*, Jones, *(8)*).

If spelling reform for English is not a practical proposition even though we want a simplified and regularized system for beginners, then that system needs to

be designed to allow easy transition to t.o. Pitman *(11)* claims that he has designed i.t.a. in such a way as to ease transition from i.t.a. to t.o. by maintaining in i.t.a. a close similarity to t.o. in respect to the configurations of the top half of whole words and phrases.

In the British research we have investigated the success of Pitman's design in several ways; and it may be said now that as far as our research program has progressed, it seems clear that by the end of the third year of school the i.t.a. pupils have attainments *in t.o.* word recognition and reading accuracy which place them about six months in advance of children who have not used i.t.a. in the beginning stage. However, this result does not necessarily represent the greatest degree of improvement that a transitional alphabet system could bring in reading. This line of research is still "at its beginning." In the years ahead the needs for research in this area will be very great indeed, and many questions need answering: can we shape an even more effective transitional alphabet using the techniques of the experimental psychology laboratories in conjunction with field trials in the schools? can improved materials be developed to increase the effectiveness of the transition phase? can new methods of teaching be devised to reduce to the minimum any loss of reading ability at the transfer stage? for how many months or years should i.t.a. be used? what is the best time to make this transition from the transitional system to t.o.?

These are the kind of questions that are occupying us at the Reading Research Unit in London, and these are the practical problems in which the 1,600 British teachers currently using i.t.a. are interested. The i.t.a. approach has run the gauntlet of initial trial and much criticism, and it has proved itself worthy of serious attention. Now that we know that this new area of innovation is so promising, let us recognize that here is a frontier in reading which is just ready to be pushed forward. Here is a vast area waiting to be explored and developed.

REFERENCES


1. Bloomfield, L. and Barnhart, C. L. *Let's Read.* Detroit: Wayne State University Press, 1961.
2. Downing, J. A. *The Initial Teaching Alphabet.* New York: Macmillan, 1964.
3. Downing, J. A., and others. *The i.t.a. Symposium.* Slough, England; National Foundation for Educational Research in England and Wales, 1966.
4. Fry, E. B. *First Grade Reading Instruction Using a Diacritical Marking System, the Initial Teaching Alphabet and a Basal Reading System.* Cooperative Research Project 2745. New Brunswick, N. J.: Rutgers, The State University, 1965.
5. Gans, Roma. "The Initial Teaching Alphabet," *Grade Teacher* (October, 1964), 33, 118.
6. Gattegno. "Words in Color," *Forward Trends* (Autumn, 1964), 8, 141-144.
7. Hahn, H. T. *A Study of the Relative Effectiveness of Three Methods of Teaching Reading in Grade One.* Cooperative Research Project 2687, Pontiac, Mich.: Oakland County Schools, 1965.
8. Jones, J. K. "Color as an Aid to Visual Perception in Early Reading," *British Journal of Educational Psychology* (February, 1965), 35, 21-27.
9. Mazurkiewicz, A. J. and Tanyzer, H. J. *Early to Read i.t.a. Program.* New York: Initial Teaching Alphabet Publications, 1964.
10. O'Donnel, M. and Munro, R. *Janet and John Reading Series* (in i.t.a. and in t.o.). Welwyn, England: James Nisbet & Co.
11. Pitman, I. J. "Learning to Read: An Experiment." *Journal of the Royal Society of Arts,* 109, 149-180, (1961).
12. Robinson, H., Monroe, M., Artley, A. S., Huck, C. S. and Jenkins, W. A. *The New Basic Readers* (in i.t.a. and in t.o.). Chicago: Scott, Foresman and Co., 1965.
13. Taylor, A. *New Nation English Series* (in i.t.a. and in t.o.), London: Nelson, 1963.


262.

# 5. The i.t.a. Reading Experiment in Britain

JOHN DOWNING and
STANLEY HALLIWELL



## Introduction

THE BRITISH experiment with the Initial Teaching Alphabet (i.t.a.) is now in its third year and in the past year there have been important developments in the use of i.t.a in Britain.

Now in Britain many educators no longer regard i.t.a. as experimental. Quite apart from the 200 schools collaborating with the Reading Research Unit, hundreds of other schools are now adopting i.t.a. as the standard procedure for beginning reading. Although in Britain every principal is free to choose whatever reading program he believes is most effective for his students, already in two large towns one hundred per cent of the schools have adopted i.t.a. The decision of these principals to use i.t.a. for beginning reading has been based to some extent on reports of our research, but largely on first-hand experience of i.t.a gained through visits to the pioneer experimental i.t.a. classes.

This wide adoption of i.t.a. makes even more important the duty of our research unit in London to conduct the scientific evaluation of i.t.a., and I am pleased to report that very substantial funds have been given to us to maintain and expand our research and development of i.t.a.

I have elsewhere provided a full description of i.t.a.[1] and in another recent publication I have discussed the history of this approach and related i.t.a.'s main features to teaching methods and children's needs in the learning situation.[2] In this paper I shall confine myself to presenting an up-to-date report of the results of the British experiments with i.t.a. for beginning reading.

## The Experiment

In the fall of 1960 I was asked to design and conduct experimental research into the effects of augmenting the alphabet in the beginning stages of learning to read. The alphabet chosen for this purpose was the i.t.a. (then known as the "Augmented Roman Alphabet") which was the invention of Sir James Pitman.[3] He proposed that young beginners should use the more simple and more reliable i.t.a. until they became confident and fluent in reading i.t.a. Then they should transfer their skill and confidence to reading the traditional orthography (T.O.) of English. Pitman had taken special care to design the i.t.a. characters and the rules for their use in spelling in such a way as to make it easy for children to transfer from i.t.a. to T.O.

To evaluate the effectiveness of i.t.a. for beginning reading we decided to compare the attainments of an experimental group of pupils starting on i.t.a. with the achievements of a matched group using only T.O. from the beginning. We have attempted to hold constant in the two groups all factors except the one critical variable of the alphabet and spelling used in beginning reading and writing. This includes efforts to match the two groups on the Hawthorne Effect.[4] Thus a difference in the achievements between the i.t.a. group and the T.O. group can be attributed to differences in the orthography.

## Results in the First Three Years

It must be emphasized that we still do not consider that our research has reached a point at which *final* answers can be given to the many questions raised by the use of i.t.a., and we would caution educators not to form definite judgments or final conclusions regarding i.t.a.'s use until the limitations of our present findings have been made good in the investigations planned for the next four years.

The most important limitation of this present report is that it can relate only to that part of the sample recruited during the school year September 1961 to September 1962. Thus the sample is relatively small for some of the results in this report, and final and best matching of i.t.a. and T.O. groups is not yet possible. However, we have investigated the composition of the i.t.a. and T.O. groups and have found no significant difference between them in respect of age, sex, social class and intelligence.

In this paper attention is focused on the group which has been under investigation longest in the British i.t.a. experiments, that is, the 413 children (and

[1] John Downing. *The Initial Teaching Alphabet.* New York: Macmillan, 1964.
[2] John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.
[3] I. J. Pitman. "Learning to Read: An Experiment." *Journal of the Royal Society of Arts,* Vol. 109, pp. 149-180, 1961.
[4] Full details of the experimental design and the composition of the sample are given in: John Downing, *The i.t.a. Reading Experiment.* London: Evans, 1964.

their T.O. control partners) who began to learn to read with i.t.a. in September 1961. We shall indicate also where there is confirmatory data from the three additional groups which began in January (106 pupils), April (143 pupils), and September (936 pupils), 1962.

1. *More rapid progress through the reading program in i.t.a. classes.*

The beginner's load of learning appears to be greatly reduced when i.t.a. is the printed medium of instruction. To read books the i.t.a. pupil needs to learn:[5]

(a) Only one form of character (e.g., *b* only—not *B*).
(b) Only one whole-word pattern for each word of English. (e.g., *bit* only—not *Bit and BIT*).
(c) Far fewer print symbols for phonemes. (e.g. Only one symbol for the *oo* sound in *zoo, shoe, flew, do, through,* etc. instead of up to 30 different symbols in T.O.).

This reduction in the volume of learning appears to lead to a very marked increase in the beginner's rate of progress through the basal readers. After only five months the four and five year old beginners in the i.t.a. group using basal readers printed in i.t.a. were significantly ahead of the T.O. group using the same basal reader series printed in T.O.

By the end of the first school year the average i.t.a. pupil was on Book II of the reading program, while the average T.O. pupil was still at Book I of the same program. Half a year later the average i.t.a. child had moved to Book IV while the T.O. boy or girl had got to Book II. After two years the position was beyond Book V for the average pupil in the i.t.a. classes as compared with Book III in the classes using T.O. The groups joining our experiments in January, April, and September 1962 appear to be making the same accelerated progress through the reading program.

TABLE 1

READING PRIMER REACHED AFTER 1, 1½ AND 2 YEARS
(SEPTEMBER 1961 ENTRANTS)

| | i.t.a. Group Median | N | T.O. Group Median | N | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|
| After 1 year | Book II | 413 | Book I | 687 | Sig. at 0.1% level |
| After 1½ years | Book IV | 413 | Book II | 687 | Sig. at 0.1% level |
| After 2 years | Book V | 306 | Book III | 610 | Sig. at 0.1% level |

Thus the relief from the burden of T.O. redundancies appears to permit pupils in i.t.a. classes to get away to a much more rapid start in reading.

2. *Much improved decoding skill in i.t.a. classes.*

Recent researches by Durrell[6] in the United States and Elkonin[7] in Russia indicate that pre-reading training in phonemic discrimination produces significantly improved progress in beginning reading, and this suggests that we should not forget that English, like Russian, is written in an alphabetic code. Unfortunately for the American or British child the T.O. code for English is extraordinarily complex and inconsistent. I.t.a. appears to provide American and British children with a more consistent or, at least, a less complex code than T.O. in three ways:[8]

(a) i.t.a. is very much more consistent in the way that it signals English phonemes (e.g. i.t.a. does not use the letter *o* to represent different sounds as T.O. does in *do, go, women, gone, one,* etc. In i.t.a. these different sounds are appropriately signalled by different print

[5]For detailed discussion of reduction of volume of learning by i.t.a. see p. 71 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

[6]D. D. Durrell and H. A. Murphy. "The Auditory Discrimination Factor in Reading Readiness and Reading Disability," *Education.* Vol. 73, pp. 556-561, 1953.

[7]D. B. Elkonin. The Psychology of Mastering the Elements of Reading, Eds. B. and J. Simon. *Educational Psychology in the U.S.S.R.* London: Routledge & Kegan Paul.

[8]For detailed discussion of the features of the i.t.a. code see pp. 73-74 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

370.264.

their T.O. control partners) who began to learn to read with i.t.a. in September 1961. We shall indicate also where there is confirmatory data from the three additional groups which began in January (106 pupils), April (143 pupils), and September (936 pupils), 1962.

1. *More rapid progress through the reading program in i.t.a. classes.*

The beginner's load of learning appears to be greatly reduced when i.t.a. is the printed medium of instruction. To read books the i.t.a. pupil needs to learn:[5]

(a) Only one form of character (e.g., *b* only—not *B*).

(b) Only one whole-word pattern for each word of English. (e.g., *bit* only—not *Bit and BIT*).

(c) Far fewer print symbols for phonemes. (e.g. Only one symbol for the *oo* sound in *zoo, shoe, flew, do, through,* etc. instead of up to 30 different symbols in T.O.).

This reduction in the volume of learning appears to lead to a very marked increase in the beginner's rate of progress through the basal readers. After only five months the four and five year old beginners in the i.t.a. group using basal readers printed in i.t.a. were significantly ahead of the T.O. group using the same basal reader series printed in T.O.

By the end of the first school year the average i.t.a. pupil was on Book II of the reading program, while the average T.O. pupil was still at Book I of the same program. Half a year later the average i.t.a. child had moved to Book IV while the T.O. boy or girl had got to Book II. After two years the position was beyond Book V for the average pupil in the i.t.a. classes as compared with Book III in the classes using T.O. The groups joining our experiments in January, April, and September 1962 appear to be making the same accelerated progress through the reading program.

TABLE 1

READING PRIMER REACHED AFTER 1, 1½ AND 2 YEARS
(SEPTEMBER 1961 ENTRANTS)

| | i.t.a. Group Median | N | T.O. Group Median | N | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|
| After 1 year | Book II | 413 | Book I | 687 | Sig. at 0.1% level |
| After 1½ years | Book IV | 413 | Book II | 687 | Sig. at 0.1% level |
| After 2 years | Book V | 306 | Book III | 610 | Sig. at 0.1% level |

Thus the relief from the burden of T.O. redundancies appears to permit pupils in i.t.a. classes to get away to a much more rapid start in reading.

2. *Much improved decoding skill in i.t.a. classes.*

Recent researches by Durrell[6] in the United States and Elkonin[7] in Russia indicate that pre-reading training in phonemic discrimination produces significantly improved progress in beginning reading, and this suggests that we should not forget that English, like Russian, is written in an alphabetic code. Unfortunately for the American or British child the T.O. code for English is extraordinarily complex and inconsistent. I.t.a. appears to provide American and British children with a more consistent or, at least, a less complex code than T.O. in three ways:[8]

(a) i.t.a. is very much more consistent in the way that it signals English phonemes (e.g. i.t.a. does not use the letter *o* to represent different sounds as T.O. does in *do, go. women, gone, one,* etc. In i.t.a. these different sounds are appropriately signalled by different print

[5]For detailed discussion of reduction of volume of learning by i.t.a. see p. 71 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

[6]D. D. Durrell and H. A. Murphy. "The Auditory Discrimination Factor in Reading Readiness and Reading Disability," *Education.* Vol. 73, pp. 556-561, 1953.

[7]D. B. Elkonin. The Psychology of Mastering the Elements of Reading, Eds. B. and J. Simon. *Educational Psychology in the U.S.S.R.* London: Routledge & Kegan Paul.

[8]For detailed discussion of the features of the i.t.a. code see pp. 73-74 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

[redacted] 265.

in its third year and in the past year there have been important developments in the use of i.t.a in Britain.

Now in Britain many educators no longer regard i.t.a. as experimental. Quite apart from the 200 schools collaborating with the Reading Research Unit, hundreds of other schools are now adopting i.t.a. as the standard procedure for beginning reading. Although in Britain every principal is free to choose whatever reading program he believes is most effective for his students, already in two large towns one hundred per cent of the schools have adopted i.t.a. The decision of these principals to use i.t.a. for beginning reading has been based to some extent on reports of our research, but largely on first-hand experience of i.t.a gained through visits to the pioneer experimental i.t.a. classes.

This wide adoption of i.t.a. makes even more important the duty of our research unit in London to conduct the scientific evaluation of i.t.a., and I am pleased to report that very substantial funds have been given to us to maintain and expand our research and development of i.t.a.

I have elsewhere provided a full description of i.t.a.[1] and in another recent publication I have discussed the history of this approach and related i.t.a.'s main features to teaching methods and children's needs in the learning situation.[2] In this paper I shall confine myself to presenting an up-to-date report of the results of the British experiments with i.t.a. for beginning reading.

## The Experiment

In the fall of 1960 I was asked to design and conduct experimental research into the effects of augmenting the alphabet in the beginning stages of learning to read. The alphabet chosen for this purpose was the i.t.a. (then known as the "Augmented Roman Alphabet") which was the invention of Sir James Pitman.[3] He proposed that young beginners should use the more simple and more reliable i.t.a. until they became confident and fluent in reading i.t.a. Then they should transfer their skill and confidence to reading the traditional orthography (T.O.) of English. Pitman had taken special care to design the i.t.a. characters and the rules for their use in spelling in such a way as to make it easy for children to transfer from i.t.a. to T.O.

To evaluate the effectiveness of i.t.a. for beginning reading we decided to compare the attainments of an experimental group of pupils starting on i.t.a. with the achievements of a matched group using only T.O. from the beginning. We have attempted to hold constant in the two groups all factors except the one critical variable of the alphabet and spelling used in beginning reading and writing. This includes efforts to match the two groups on the Hawthorne Effect.[4] Thus a difference in the achievements between the i.t.a. group and the T.O. group can be attributed to differences in the orthography.

## Results in the First Three Years

It must be emphasized that we still do not consider that our research has reached a point at which *final* answers can be given to the many questions raised by the use of i.t.a., and we would caution educators not to form definite judgments or final conclusions regarding i.t.a.'s use until the limitations of our present findings have been made good in the investigations planned for the next four years.

The most important limitation of this present report is that it can relate only to that part of the sample recruited during the school year September 1961 to September 1962. Thus the sample is relatively small for some of the results in this report, and final and best matching of i.t.a. and T.O. groups is not yet possible. However, we have investigated the composition of the i.t.a. and T.O. groups and have found no significant difference between them in respect of age, sex, social class and intelligence.

In this paper attention is focused on the group which has been under investigation longest in the British i.t.a. experiments, that is, the 413 children (and

[1]John Downing. *The Initial Teaching Alphabet.* New York: Macmillan, 1964.
[2]John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.
[3]I. J. Pitman. "Learning to Read: An Experiment." *Journal of the Royal Society of Arts,* Vol. 109, pp. 149-180, 1961.
[4]Full details of the experimental design and the composition of the sample are given in: John Downing, *The i.t.a. Reading Experiment.* London: Evans, 1964.

266.

symbols).

(b) i.t.a. removes the ambiguity of direction of reading which exists in T.O. (e.g. in T.O. in the word *bone* the first sound is signalled by the first letter on the left, but the second sound is signalled by letters two plus four and the child must *reverse* from right to left to read the final sound signalled by letter number three. In i.t.a. the left to right rule of reading is never broken, thus bœn).

(c) i.t.a. reduces the complexity of the print code for phonemes (for example the two letters *oe* are used in T.O. to represent a different sound in *toe* from either of the sounds indicated by *o* and *e* separately in *got* and *get*. In i.t.a. a special character is used for this sound always—thus œ in tœ and *o* and *e* are reserved for their own particular sounds).

This attempt to make i.t.a. a more reliable code for young English-speaking beginners in reading seems to have produced the most dramatic results in the British research into i.t.a. Pupils in the i.t.a. group have demonstrated great superiority in word-building. For instance, on the Schonell[9] graded word reading test, the average child in the pioneer group of i.t.a. experimental classes which had been set up in September 1961 could, in the following July (1962), read 19 test words or more on the i.t.a. version of the test, whereas the average T.O. pupil could read only five test words on the same test in T.O. Half a year later the average scores were 37 test words read correctly in the i.t.a. group and 11 in the T.O. group. Results from the twelve hundred entrants to the i.t.a. group have provided confirmation of this finding.

The greater regularity of the character

[9]F. Schonell. *Diagnostic and Attainment Testing.* Edinburgh: Oliver and Boyd, 1950.

TABLE 2

DECODING RESULTS AFTER 1 AND 1½ YEARS
(SEPTEMBER 1961 ENTRANTS)
SCHONELL GRADED WORD READING TEST

| | i.t.a. Group — | S.D. | N | T.O. Group — | S.D. | N | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|---|---|
| After 1 year | 18.8 | 20.7 | 345 | 5.2 | 6.6 | 623 | Sig. at 0.1% level |
| After 1½ years | 37.1 | 20.7 | 345 | 10.9 | 10.6 | 623 | Sig. at 0.1% level |

to sound relationship in the i.t.a. thus appears to produce superior attainment in decoding printed English into speech. Other tests have shown that the superiority of the i.t.a. group is not confined to decoding. As we reported last year[10] the i.t.a. pupils are also significantly advanced in comprehension, accuracy in sentence reading and in speed of reading.

3. *Superior reading after the transfer from i.t.a. to T.O.*

In the schools using i.t.a. each child makes the transfer to reading traditional print when he individually is ready for this step. A very few children have been transferred from reading i.t.a. to reading T.O. after only two or three months, but most appear to reach the necessary fluency in i.t.a. during the second year of schooling.

Fluency in reading i.t.a. is desirable before transfer to T.O., because Pitman's design of the alphabet has preserved in i.t.a. to the greatest extent compatible with the purpose of an easier beginning those same cues, generally situated in the top half of the line of print, which are employed in fluent reading of T.O. Contextual clues help pupils with that minority of words which do change drastically in appearance. When a high level of fluency in i.t.a. has been achieved the pupil should have the necessary skills of using minimal cues and contextual clues to ensure a smooth transfer.

Eighteen months after beginning with i.t.a. pupils achieve very superior scores

[10]See pp. 74-78 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

267.

on tests *printed in T.O.* The children who began with i.t.a. and later transferred to T.O. have read the latter with much greater accuracy and comprehension than children who have been learning with T.O. from the beginning.

For instance, a sub-sample of seven carefully matched pairs of i.t.a. and T.O. schools were selected from those who had joined the experiment in September 1961, and their pupils were tested on the Neale Analysis of Reading Ability.[11] After 18 months at school the average i.t.a. pupil scored 23 for accuracy and 8 for comprehension when reading the Neale test *in T.O.* as compared with scores of 9 and 4 respectively for the child who had been on T.O. from the outset. The i.t.a. pupil reads an average of 34 words *in T.O.* per minute as compared with 19 words per minute by the average child in the classes where T.O. has been the medium of instruction from the beginning. (This is in spite of the fact that only one-half of the pupils in the i.t.a. group had been introduced by their teachers to T.O. books).

[11] Marie D. Neale. *Neale Analysis of Reading Ability*. London: Macmillan, 1963.

TABLE 3

TRANSFER RESULTS AFTER 1½ YEARS
(SEPTEMBER 1961 ENTRANTS)
NEALE ANALYSIS OF READING ABILITY (FORM A)—IN T.O. FOR BOTH GROUPS

| | i.t.a. Group — | S.D. | N | T.O. Group — | S.D. | N | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|---|---|
| Reading Rate | 33.9 | 24.2 | 146 | 18.7 | 18.9 | 190 | Sig. at 5% level |
| Reading Accuracy | 22.9 | 17.4 | 146 | 9.3 | 11.9 | 190 | Sig. at 0.1% level |
| Reading Comprehension | 7.9 | 6.1 | 146 | 3.5 | 4.4 | 190 | Sig. at 0.1% level |

A later test of these children has provided further confirmation that i.t.a. beginners read T.O. with significant superiority. In the middle of the third year of schooling we tested the i.t.a. children (chronological age 7.1 years) on *the standard T.O.* version of the Schonell test. The average score for the i.t.a. group (including some pupils who were still on i.t.a. readers) was 34.4 test words *in T.O.* —the standard for age 8.4 years. The T.O. group's average score was 24.1—the standard for age 7.4 years.

4. *i.t.a.'s effects on writing and spelling.*

We have reported previously[12] that creative writing appears to be much improved in i.t.a. classes. Teachers claim that, for instance, "the standard of creative writing has improved almost beyond comparison." These claims are at present under objective investigation at the Reading Research Unit[13] but already, in her independent study of i.t.a., Southgate[14] has observed that "Free writing in the class appeared more spontaneous, prolific and correctly spelt than is usual with such young children."

[12] See pp. 40-42 of John Downing. *The i.t.a. Reading Experiment*. London: Evans, 1964.

[13] Michael Lyon. "A Study of Some Samples of Children's Free Writing in i.t.a. and t.o." Unpublished paper.

TABLE 4

TRANSFER RESULTS AFTER 2 YEARS
(SEPTEMBER 1961 ENTRANTS)
SCHONELL GRADED WORD READING TEST
IN T.O. FOR BOTH GROUPS

| | i.t.a. Group | T.O. Group |
|---|---|---|
| — | 33.9 | 24.2 |
| S.D. | 21.4 | 18.1 |
| N | 321 | 583 |

t—test t=6.9 sig. at .1% level

Two months ago we administered a T.O. spelling test[15] to both i.t.a. and T.O. groups. At the time of writing not all the answer papers have been returned but Table 5 shows the analysis of the data as

[14] Vera Southgate. Augmented Roman Alphabet Experiment. An Outsider's Report. *Educational Review*. Vol. 16, pp. 32-41, 1963.

on tests *printed in T.O.* The children who began with i.t.a. and later transferred to T.O. have read the latter with much greater accuracy and comprehension than children who have been learning with T.O. from the beginning.

For instance, a sub-sample of seven carefully matched pairs of i.t.a. and T.O. schools were selected from those who had joined the experiment in September 1961, and their pupils were tested on the Neale Analysis of Reading Ability.[11] After 18 months at school the average i.t.a. pupil scored 23 for accuracy and 8 for comprehension when reading the Neale test *in T.O.* as compared with scores of 9 and 4 respectively for the child who had been on T.O. from the outset. The i.t.a. pupil reads an average of 34 words *in T.O.* per minute as compared with 19 words per minute by the average child in the classes where T.O. has been the medium of instruction from the beginning. (This is in spite of the fact that only one-half of the pupils in the i.t.a. group had been introduced by their teachers to T.O. books).

[11]Marie D. Neale. *Neale Analysis of Reading Ability.* London: Macmillan, 1963.

TABLE 3

TRANSFER RESULTS AFTER 1½ YEARS
(SEPTEMBER 1961 ENTRANTS)
NEALE ANALYSIS OF READING ABILITY (FORM A)—IN T.O. FOR BOTH GROUPS

| | i.t.a. Group | | | T.O. Group | | | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|---|---|
| | — | S.D. | N | — | S.D. | N | |
| Reading Rate | 33.9 | 24.2 | 146 | 18.7 | 18.9 | 190 | Sig. at 5% level |
| Reading Accuracy | 22.9 | 17.4 | 146 | 9.3 | 11.9 | 190 | Sig. at 0.1% level |
| Reading Comprehension | 7.9 | 6.1 | 146 | 3.5 | 4.4 | 190 | Sig. at 0.1% level |

A later test of these children has provided further confirmation that i.t.a. beginners read T.O. with significant superiority. In the middle of the third year of schooling we tested the i.t.a. children (chronological age 7.1 years) on *the standard T.O.* version of the Schonell test. The average score for the i.t.a. group (including some pupils who were still on i.t.a. readers) was 34.4 test words *in T.O.* —the standard for age 8.4 years. The T.O. group's average score was 24.1—the standard for age 7.4 years.

4. *i.t.a.'s effects on writing and spelling.*

We have reported previously[12] that creative writing appears to be much improved in i.t.a. classes. Teachers claim that, for instance, "the standard of creative writing has improved almost beyond comparison." These claims are at present under objective investigation at the Reading Research Unit[13] but already, in her independent study of i.t.a., Southgate[14] has observed that "Free writing in the class appeared more spontaneous, prolific and correctly spelt than is usual with such young children."

[12]See pp. 40-42 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

[13]Michael Lyon. "A Study of Some Samples of Children's Free Writing in i.t.a. and t.o." Unpublished paper.

TABLE 4

TRANSFER RESULTS AFTER 2 YEARS
(SEPTEMBER 1961 ENTRANTS)
SCHONELL GRADED WORD READING TEST
IN T.O. FOR BOTH GROUPS

| | i.t.a. Group | T.O. Group |
|---|---|---|
| — | 33.9 | 24.2 |
| S.D. | 21.4 | 18.1 |
| N | 321 | 583 |

t—test t=6.9 sig. at .1% level

Two months ago we administered a T.O. spelling test[15] to both i.t.a. and T.O. groups. At the time of writing not all the answer papers have been returned but Table 5 shows the analysis of the data as

[14]Vera Southgate. Augmented Roman Alphabet Experiment. An Outsider's Report. *Educational Review,* Vol. 16, pp. 32-41, 1963.

[redacted] 269.

symbols).

(b) i.t.a. removes the ambiguity of direction of reading which exists in T.O. (e.g. in T.O. in the word *bone* the first sound is signalled by the first letter on the left, but the second sound is signalled by letters two plus four and the child must *reverse* from right to left to read the final sound signalled by letter number three. In i.t.a. the left to right rule of reading is never broken, thus bœn).

(c) i.t.a. reduces the complexity of the print code for phonemes (for example the two letters *oe* are used in T.O. to represent a different sound in *toe* from either of the sounds indicated by *o* and *e* separately in *got* and *get*. In i.t.a. a special character is used for this sound always—thus œ in tœ and *o* and *e* are reserved for their own particular sounds).

This attempt to make i.t.a. a more reliable code for young English-speaking beginners in reading seems to have produced the most dramatic results in the British research into i.t.a. Pupils in the i.t.a. group have demonstrated great superiority in word-building. For instance, on the Schonell[9] graded word reading test, the average child in the pioneer group of i.t.a. experimental classes which had been set up in September 1961 could, in the following July (1962), read 19 test words or more on the i.t.a. version of the test, whereas the average T.O. pupil could read only five test words on the same test in T.O. Half a year later the average scores were 37 test words read correctly in the i.t.a. group and 11 in the T.O. group. Results from the twelve hundred entrants to the i.t.a. group have provided confirmation of this finding.

The greater regularity of the character

[9]F. Schonell. *Diagnostic and Attainment Testing.* Edinburgh: Oliver and Boyd, 1950.

TABLE 2

DECODING RESULTS AFTER 1 AND 1½ YEARS
(SEPTEMBER 1961 ENTRANTS)
SCHONELL GRADED WORD READING TEST

| | i.t.a. Group — | S.D. | N | T.O. Group — | S.D. | N | Kolmogorov-Smirnov Test of Significance |
|---|---|---|---|---|---|---|---|
| After 1 year | 18.8 | 20.7 | 345 | 5.2 | 6.6 | 623 | Sig. at 0.1% level |
| After 1½ years | 37.1 | 20.7 | 345 | 10.9 | 10.6 | 623 | Sig. at 0.1% level |

to sound relationship in the i.t.a. thus appears to produce superior attainment in decoding printed English into speech. Other tests have shown that the superiority of the i.t.a. group is not confined to decoding. As we reported last year[10] the i.t.a. pupils are also significantly advanced in comprehension, accuracy in sentence reading and in speed of reading.

3. *Superior reading after the transfer from i.t.a. to T.O.*

In the schools using i.t.a. each child makes the transfer to reading traditional print when he individually is ready for this step. A very few children have been transferred from reading i.t.a. to reading T.O. after only two or three months, but most appear to reach the necessary fluency in i.t.a. during the second year of schooling.

Fluency in reading i.t.a. is desirable before transfer to T.O., because Pitman's design of the alphabet has preserved in i.t.a. to the greatest extent compatible with the purpose of an easier beginning those same cues, generally situated in the top half of the line of print, which are employed in fluent reading of T.O. Contextual clues help pupils with that minority of words which do change drastically in appearance. When a high level of fluency in i.t.a. has been achieved the pupil should have the necessary skills of using minimal cues and contextual clues to ensure a smooth transfer.

Eighteen months after beginning with i.t.a. pupils achieve very superior scores

[10]See pp. 74-78 of John Downing. *The i.t.a. Reading Experiment.* London: Evans, 1964.

270.

TABLE 5

T.O. SPELLING TEST (SEPTEMBER 1961 ENTRANTS)
SCHONELL'S GRADED WORD SPELLING TEST A

OVER-ALL COMPARISON

| | i.t.a. Group (N-318) | t.o. Group (N-602) |
|---|---|---|
| Mean | 28.7 | 24.1 |
| S.D. | 16.4 | 14.0 |
| | t - 4.34 sig. at 0.1% level | |

yet available.

What is of great interest is that the i.t.a. pupils can by the middle of their third year of schooling spell in T.O. significantly better than the children who have been reading and writing with T.O. for the whole time.

Although the spelling test was administered to both groups of children in T.O., 49 (15 per cent) of the 318 i.t.a. children had not transferred to T.O. at the time of testing. It should be emphasized that these spelling results are incomplete and that the background information of the two groups in terms of intelligence, sex and social class, has not been determined in time for this report.

An interesting point on spelling is provided by one principal who reports that her children, after reading and writing *cum* in i.t.a. and then later being transferred to T.O. and instructed to write *come,* generally do spell this word *come,* whereas in the T.O. class, where T.O. *come* has been used from the outset, many of the children persist in writing *cum* which no one has ever required them to write!

## Conclusions

In conclusion, although caution must be exercised in respect of the findings of this further interim report, the results of the i.t.a. experiment in Britain provide a further indication that a fruitful line of enquiry has been found.

At this present time, in the third year of the Reading Research Unit's experiment in British Infants' Schools, it does appear that i.t.a., designed as it is for ease of learning at the beginning and ease of transfer to T.O. at the second stage, does accelerate the acquisition of basic reading skills and that this primary training in i.t.a. is transferred to T.O. in such a way that a very substantial saving is gained in learning to read T.O.

[16]Schonell's Graded Word Spelling Test A in *Schonell Diagnostic and Attainment Testing.* Edinburgh: Oliver and Boyd, 1950.

88.

# SEQUENCES

## DEVELOPMENTAL READING

### A. PRIMARY LEVEL

### 1. Relating Reading Instruction to Children's Developmental Growth Patterns

LYDIA A. DUGGINS
University of Bridgeport

THE SPEECH of the young child is significantly related to his reading readiness. We can utilize our knowledge of the way this speech develops to improve our reading programs.

The child is born with considerable skill in the utilization of vowel sounds. He perfects this skill through functional play and adds consonants as he gains control of lip and tongue. This enables him to exercise more precise control and to retain sounds to convey meaning.

This developmental pattern suggests when and how we should teach the child consonant and vowel sounds. We should teach the vowels and add consonants to convey specific meanings. We should not isolate consonants from the vowels they shape. It is the relationship of vowel to consonant that is significant in reading.

In applying the developmental speech pattern to instruction in reading, we remember that speech and reading are not equivalent acts. In speech, the end product is saying something. In reading, it is hearing something. Many of our mistakes in utilizing our knowledge of speech development to improve reading instruction lie in our assumption that reading and speech are really one process. This has resulted in an over-emphasis upon reading aloud and a neglect of the important skill of listening and of mental rather than verbal symbol-sound imagery.

The child is engaged at this time in another learning situation that relates significantly to his achievement in reading. The child establishes a world of relationships outside himself through crawling and manipulating. Concepts of form and direction grow out of these experiences. The child's reading should be built upon these concepts of direction, form, time, and sequence. These learnings, and the physical involvement that goes into their development, are the foundation for the visual skills and for the relationships basic to reading comprehension.

#### The Spatial Relationships of Reading

Reading has its own unique requirements in spatial relationships. Words relate to the feel of speech, the placement of tongue in respect to teeth and lips, and the control or release of breath. Both reading and speech have a rhythm that relates to meaning.

The development of the patterns of speech is a total body function, involving the quality as well as the quantity of physical experiences a child has had in learning to walk, in establishing dominance, and in learning a multitude of physical relationships to himself and his body image. Reading is not merely generalizing on these early language experiences. It is probably best defined as a re-experiencing of language as it relates to visual symbols to produce auditory responses. Reading has direction, intent, meaning, and the goals of intercommunication, as do speech experiences. The support of physical ideation is just as important to reading as it is to speech. Symbols not responded to in speech are not remembered. In reading, symbols to which the child does not have a meaningful relationship will also be forgotten.

The young child's vocabulary in speech is determined by his needs, his experiences, and his successes in communication. He talked in response to things he knew, wanted, or was stimulated by. He literally wrapped his tongue around his world to



272.

explore it. He must, to succeed in reading, wrap his mental tongue around an inner world of sound and must accept the requirements to explore beyond direct experience. To do this, he needs to feel he has the hand of familiar experience to guide him. He must learn to read through channels already established, but this time it must be by listening rather than saying.

### Basis for Applying Developmental Patterns to Reading

There is much to be learned about applying our knowledge of the developmental patterns of speech to instruction in reading. But many things that can enrich and improve our reading programs and form the basis for important guidelines in evaluating the many proposals for new designs in reading programs are known.

We have enough information to know that auditory, motor, and visual discrimination experiences presented in many reading programs pre-suppose sub-skills that cannot be taken for granted. Visual and auditory discriminations are the end results of the process of language development and can be no more useful than the strength of the sub-skills that support them. They must be developed under the wisest guidance.

To make the necessary discriminations in reading, the child requires a rich background of varied experiences in establishing the relationship of sound to the letters that symbolize it. A word is a word, not because it is made up of letters, but because these letters relate to each other in a specific sequence of time and space.

### Planning a Reading Program Based on Child Growth Patterns

Hypothesizing that we will plan a program in reading that builds upon the developmental growth patterns of the child, we will include many opportunities to manipulate and explore with little imposition of structure. We will consider the physical skills the child has already developed. We will utilize prior learnings in familiar patterns in introducing new skills. We will work for a program that will be personally satisfying to the child and will move at the pace most suitable for him.

### Use of the Names of Vowels to Establish Directionality

As in speech, we will start with the vowels, but with the long sounds to enhance the motor memory, since the reading experience will be a listening, rather than a saying, one. Establish direction for the child by using the classroom environment. The window may be the beginning of a word, the door the ending, and the child's nose the middle. Have him show with his writing hand only, where the "a" is in "ate". It is the first thing one hears, and so is on the window side. Have him swing his right arm all the way across his body (if right handed) with his elbow straight so that he will get the feeling of direction. Continue in this way with other words such as "taste, play." Let all work be auditory. The child is to listen and show. The hands are a primary tool for training the eyes and directionality is established in this way much more effectively than with a question-answer, or visual experience.

### Supporting Directional Skills with Writing

While the child is learning to locate vowel sounds in words spoken, support can be given with writing activities. These writing experiences may be free writing of a story the child plans, writing teacher-dictated responses, and formal training in learning to write the letters.

In self-initiated writing, the child first draws a picture to illustrate his story. The picture is highly significant, for it represents the child's efforts to pattern ideas to show a relationship. Later, he will substitute an outline for this picture.

The child's first stories are "scribbled," moving from left to right. He should be allowed great freedom of choice in these stories. As he gains facility in expressing himself, he may be introduced to common forms of punctuation such as a period, a question mark, or a "capital scribble" for the starting of the story.

After the child completes the writing of his story, time should be provided for him to read it aloud. This establishes the relationship of writing to "talk on paper." It gives the child an opportunity to "hear" what he has written and to

edit it. It establishes the idea that these marks on paper are for the purpose of preserving talk to be heard. These concepts are basic to reading.

### Utilizing Body Imagery in Reading Instruction

Early experiences in reading should be mainly auditory and should be supported with much body imagery. In teaching the letter names, let the child "show" or "be" a letter. The letters "b" and "d" may look alike, but they do not feel alike when one is acting them out.

Use body imagery in teaching the location of long vowels in words heard. Have two or three children show, by standing together, where the letters in a word are located. Have them stand close to the chalkboard while the teacher writes above their heads the letters they represent.

Have the child form with his hands the shape of a vowel he hears in a word the teacher pronounces. Let him show the number of things he hears in a word. When he is ready for open syllables, introduce this by having him show where he hears an "e" in the letter "b." Dictate words and have the child write the first two letters he hears in such words as "bite" and "baby."

Short vowel sounds may be taught in the same way. Give further support to short vowels by having the child carry out the directions: "Stand on the chair. Sit in the chair. Get under the chair. Stand at the chair. Sit on the edge of the chair." Secondly, give only the action words: "in, on, under, at, edge." Next, use only the short sound of the vowel, and shape it with your hands as you say it. Finally, use the hand signal only and have the child "hear" the sound mentally and carry out the desired action.

The teaching of syllabication can be supported with body imagery. Write "be" on the chalkboard while you say it. Write "eb" while you say it. Continue in this way with several letters, giving both the long and short sound of the vowel. Then have the child show with his writing hand, where the vowel is in "be-eb," "se-es," and other such combinations. Let him feel the leftness of short vowel sounds and the rightness of long sounds. Take nonsense words such as "fatelasif." Have the child put a finger under "a" and a finger under "e." Help him see that the one letter between the vowels goes right, which is the "long vowel side." In the next syllable, there are two letters between the vowels. One comes back "to the left," or short vowel sound, side. Do not mark off the syllables. The child will be able to see them *in* the word, which is where they belong in reading.

### Teaching the Use of Context Clues

Start working with context clues with the very first vowel the child learns to write. Have him write words as you pronounce them, using the vowel and a scribble (Ohio is written o . . . o). As he write consonants, add them to the words written (bike is written bi . . . ). Write on the chalkboard the syllables "ba, bi, bo, be, bu". Use sentences spoken, and have the child select the syllable that starts a word. "I will give my brother a present. I will give him a . . . ?". In this way the child will use context for meaning from the very beginning of his reading instruction.

When the child has advanced to the point in his skills development at which he is reading polysyllabic words with ease, the teacher may use sentences in which one word is a "nonsense" word. An example is, "The bear anskered into the forest." Have the children give words that could take the place of the "nonsense" word. Accept any offering they suggest. Finally, have them choose various words from their list to convey a specific meaning. A frightened bear *fled*. A lazy bear *ambled*.

In all these skills lessons, use much body imagery to enable the child to feel as well as hear and see the language of print. With his first experiences with letters, the child could use words for a target in space and he was ready to explore visual sound and to comprehend the experiences of others in print. Talk would now be "ear-bridged" into a visual experience with printed symbols.

[redacted] 274.

89.

Vol. 5, 1960

## b. Evaluating Pupil Team Learning in Intermediate Grades

112.

DONALD D. DURRELL

This is a report of "pupil team" learning as a method of providing for individual differences among children in intermediate grades. During the year 1958-59, under a U. S. Office of Education contract, forty-seven intermediate grade teachers in eight elementary schools of Dedham, Massachusetts, utilized pupil team instruction as a major method in their classrooms. In order to discover whether the program produced gains in pupil achievement, standard tests were given in all subjects in June 1958, prior to the experimental year, and these were compared with the results of tests in June 1959, following the experimental year.

Pupil team learning should be based upon the principle of adjusting group size and make-up to the highest economy of learning. The nature of the learning task determines the size of the group, and whether or not it includes pupils of like or unlike abilities. While we do not yet know the optimum group size and make-up for different learning tasks, in the Dedham study we depended upon previous experiments and upon theory—or best guess—as to the formation and use of our pupil teams. The decisions made may best be illustrated by our use of team learning in different subjects.

Arithmetic always seems to work well through a "team progress" method. Pupils were divided into teams of three on the basis of arithmetic ability, with some regard for congeniality. Daily assignments were indicated by a mimeographed guide, with tests interspersed at intervals to determine individual mastery. Members of the team worked together on the problems, comparing answers and assisting each other with corrections and explanations. Superior learners moved rapidly; as they completed the work of the textbook for the grade, they moved to that of the next grade. One-third of all pupils finished the arithmetic for two grades during the year. When it was apparent that slower pupils needed more teacher direction, the program was modified for them in this fashion: new processes were introduced by the teacher, then pupil teams worked together until they completed the lessons related to the process. Those who completed the work earlier than the time for presentation of the next step, utilized the free time to work on specialties in other subjects. Very slow pupils in arithmetic required more teacher direction, but the teacher time for remedial work was available, since other pupils were at work in teams and required little aid.

Spelling was handled in a manner similar to that of arithmetic. Teams of two or three pupils were formed on the basis of spelling ability. The test-correction method was followed, with pupils studying the words, dictating to each other, correcting errors, then writing words from dictation again if errors were frequent. Persistent errors were placed in personal spelling lists. Superior spellers moved through the work of the year rapidly. They did not then go on to the spellers of the next grade, but were required to keep personal spelling lists of words which were new and useful to them. These lists served as occasional "brush-up" lessons. Pupils who were very poor in spelling were usually under the direction of the teacher. They were given shorter lists, easier words, and were aided in syllabication, visual memory, and word usage.

The program began with arithmetic and spelling because we had more experience with these subjects and knew that the methods would be readily accepted by pupils and teachers. Although both subjects might have profited by more enrichment and applications, the major factors of differences in level and learning rates were cared for by this method. The self-directing, self-correcting features of the work for more capable pupils freed the teacher for remedial work with slower learners. Of course there were a number of "ground rules" and record forms necessary to make the team progress methods work smoothly.

[redacted]

275.

When we approached history and geography, which were taught as separate subjects in this school system, we were forced to improvise many types of services. Teachers do not change readily from uniform instruction in which reading of textbooks is followed by class recitation or written work. General advice, even when illustrated by demonstrations in regular classrooms, does not move quickly into practice.

The major services in history and geography were the following: (1) study guides consisting of questions to answer while studying, used by partners; (2) various types of team "recitation" or discussion, with a pupil secretary recording answers of teams of three to five pupils; (3) curriculum-related pupil "specialties," assigned in advance to individual pupils or teams. Where the reading ability of pupils was adequate to the textbook, teams of pupils used study guides prepared by committees of teachers under the guidance of members of the research team. Ideally, these guides should differ in complexity of mental task in relation to the abilities of the pupils. However, it must be admitted that the guides were often largely factual and did not show the variation desired. When the reading ability of pupils was much too low for the textbook, the presentation was often made orally by the teacher.

When all pupils have access to the same information, through reading, listening, or other forms of mass presentation, recitation or discussion teams may be made up of pupils of unequal ability. Teams of three to five pupils work well, with one serving as secretary to record the answers of the group. After teams have completed their answers, the secretary may read the group answer, while other teams check their lists to find additional possible answers. We found that specific written tasks were necessary to keep group discussion well disciplined. Also, it is desirable that the teacher collect group answers in order to give them importance. Teams of three work better when the questions to be answered are largely factual; teams of five are more effective when elaborative or critical thinking is required.

In social studies and science, all pupils followed the course of study at the same pace; there was no attempt to provide for differences in learning rate. Greater depth and breadth came from curriculum-related specialties in history, geography, science, and literature. These specialties were generally limited to the top half of the pupils, although some teachers found ways to include all pupils in the specialties program. Textbooks were searched for areas of knowledge which might be enriched through special reports. These were assigned well in advance of their presentation, and assistance was given by teachers, librarians, parents, and neighbors. Reports of specialties always required unveiling a display of pictures, objects, maps, or charts; oral presentation was usually limited to ten minutes. Pupil specialties were a major part of the program; their importance is indicated by the town librarian's report of the doubling of circulation of library books at this grade level.

The many different types of abilities in language arts required a variety of team approaches. Language-grammar exercises were "packaged" and learned in team progress methods. Creative writing often required a variety of groupings. The writing situation or problem was presented by the teacher to the whole class, using many types of situations to evoke imagination. Teams of five children of unequal ability discussed possible approaches to the task. Each child wrote his composition alone, using or varying the ideas suggested in group discussion. After writing, proofreading was done by pairs of pupils who exchanged papers and discussed corrections. Then children read stories to each other in teams of three, selecting superior papers for class presentation. While this complexity of grouping and regrouping was not always followed, the team planning of compositions was a regular feature of creative writing.

The reading program consisted more of enrichment than of special skills development. We hoped that improvement of reading comprehension, recall, and study abilities would result from the team study techniques in the content subjects. We also expected that the independent reading specialties in history, geography, science, and literature would aid general

reading achievement. The basal readers were replaced two or three days a week with play reading, choral reading, listening, or independent reading. Superior readers dispatched the reading textbooks early in the year through reacting to team assignments in relation to the stories. Average readers used the reading textbooks two or three days a week, with three-man team responses following the lessons. Slow readers were moved to textbooks suitable to their levels, and were under teacher direction much of the time. Although there was some attempt at intensive work in special reading skills development, the only generally used material was sets of word analysis practice cards, requiring response to meaning after analysis. These had been experimentally evaluated previously and had proved effective in improving both word analysis and spelling.[1]

In evaluating such a general program, there are far more variables than one would wish. It is impossible to assign gains or losses to any particular procedure when so many are introduced simultaneously. The stimulating effect of a new and ambitious program, the attendant publicity, the constant presence of the research team, and the knowledge of later evaluation may account for any gains. The experimental nature of the program, the variety of approaches, and the attempt to reach so many objectives may result in confusion of teachers and pupils, with attendant losses in achievement. Just which activities encouraged growth or which impeded it, is impossible to discover from this study. The most serious handicap to evaluation was the lack of objective measures for many of the implied values in the program.

However, the amount of damage done, or the general gains and losses in achievement may be roughly assessed by the Metropolitan Achievement Test scores of the pupils for the year prior to and following the experimental program. Comparisons are limited to pupils of teachers who taught both years. There were twelve fourth grades, nine fifth grades, and fourteen sixth grades which satisfied this condition.

The following tables indicate the results. To begin with the happier findings, here are the comparisons for 1958 pupils and 1959 (experimental) pupils of fourteen sixth grade classrooms :

*Fourteen Sixth Grade Classrooms*

Mean Grade Scores

| | 1958 | 1959 | Difference |
|---|---|---|---|
| Arithmetic | | | |
| Computation | 7.5 | 7.6 | .1 |
| Problems | 7.9 | 8.7 | .8* |
| Spelling | 7.1 | 7.4 | .3† |
| Reading | 7.4 | 8.2 | .8* |
| Literature | 7.6 | 8.6 | 1.0* |
| History | 7.9 | 7.9 | .0 |
| Geography | 8.3 | 9.1 | .8† |
| Science | 7.6 | 8.1 | .5† |
| Average | | | |
| Achievement | 7.6 | 8.2 | .6* |

* Significant at 1 percent level.
† Significant at 5 percent level.

Improvement in achievements through the experimental program among nine fifth grades is shown in the following table:

*Nine Fifth Grades*

Mean Grade Scores

| | 1958 | 1959 | Difference |
|---|---|---|---|
| Arithmetic | | | |
| Computation | 6.5 | 6.8 | .3* |
| Problems | 6.7 | 7.5 | .8* |
| Spelling | 6.4 | 6.8 | .4* |
| Reading | 6.7 | 6.8 | .1 |
| Literature | 6.3 | 7.0 | .7* |
| History | 7.0 | 6.8 | —.2 |
| Geography | 6.4 | 6.9 | .5† |
| Science | 6.7 | 7.1 | .4 |
| Average | | | |
| Achievement | 6.6 | 7.0 | .4* |

The program in the twelve fourth grades resulted in gains only in spelling; there were slight losses in arithmetic and reading. The Metropolitan Achievement Tests provided no measures of other subjects at fourth grade level.

[1]Donald D. Durrell and Doris U. Spencer, "Word Analysis Through Inductive Techniques," *Educational Leadership*, 17; May, 1960, pp. 523-26.

277.

*Twelve Fourth Grades*

Mean Grade Scores

| | 1958 | 1959 | Difference |
|---|---|---|---|
| Arithmetic | | | |
| Computation | 5.5 | 5.4 | —.1 |
| Problems | 5.6 | 5.6 | .0 |
| Spelling | 5.6 | 6.3 | .6* |
| Reading | 5.8 | 5.7 | —.1 |
| Average | | | |
| Achievement | 5.7 | 5.8 | .1 |

At the outset of the study, we hoped for improvement in achievement in all subjects at all grade levels. Rapid and slow learners were expected to show more improvement than average achievers, since it was assumed that uniform instruction was better adapted to average pupils. It seemed that boys might show unusual gains in a program which called for more pupil activity and responsibility. It was also expected that there would be greater interest in school subjects, and improvement in the social climate of the classrooms.

Average achievement improved significantly in grades five and six, but showed no gain in grade four. Analysis of data by intelligence levels showed that bright pupils made statistically significant improvement over the control year in grades five and six, but not in grade four. Achievements of slow learners improved in all grades. The middle group of children made significant improvement in grades five and six, but had slight losses in grade four. Boys improved more than did girls in all subjects in grades four and five, but the reverse was true in grade six. There were no statistically significant changes in social-personal measures except in grade five, where interest in school subjects improved significantly.

The values of pupil teams in specific aspects of learning in various subjects awaits more carefully controlled studies, in which the team situation is the single variable. There must be many situations in which the amount and quality of learning is enhanced by combining pupils into teams of varying sizes. All studies show that children enjoy working in teams more than working alone; if team learning also produces higher achievement, it should be more widely used in classrooms.

A more complete account of this study is found in:

Donald D. Durrell, and others. "Adapting Instruction to the Learning Needs of Children in Intermediate Grades." *Journal of Education* 142:1-78, December, 1959.

[redacted], 278.

90.

## 2. Pupil-Team Learning

### a. *Pupil-Team Learning: Objectives, Principles, Techniques*

15.

DONALD D. DURRELL

Pupil team learning has many possibilities for differentiating and enriching instruction. It consists of combining pupils in pairs or groups of three to five for mutual aid in learning.

The fact that children prefer to work and play together in small groups has long been known. Gregariousness has always been included in lists of "natural tendencies" of children. Any study of children's preferences for different types of classroom activities will show that they desire to work in pairs or small groups rather than alone. This desire offers a motivating force which can be utilized in the classroom. Grouping in small teams provides an administrative technique for providing for individual differences. It has possibilities for reinforcing and enriching instruction, as well as for increasing the amount of pupil practice per hour.

The basic objective of pupil team learning is the same as for all educational practices: to increase the amount and quality of learning. Any school procedure should stand this test: if it produces a greater amount and quality of learning in a particular situation, it should be continued. If it tends to diminish either the amount or quality of learning, or if it is less economical in the use of classroom time than other methods, it should be discontinued. We are not concerned here

[1]Mary C. Austin, Coleman Morrison, et al. *The Torch Lighters.* Cambridge: Harvard University Press, pp. 139-157.

[2]On the basis of findings reported above, the Harvard-Carnegie Study staff makes twenty-two recommendations tailored to meet existing four-year baccalaureate programs.



with group dynamics, decision-making, leadership roles, or power structure in the classroom; we leave these to our psychological and sociological friends who enjoy dealing with nebulous learning outcomes. We expect pupil team learning to be evaluated in terms of learning power and economy.

Pupil team learning is not proposed as a panacea to replace all other types of classroom activities. We still have too much of the "cultist" mind in professional education which considers every proposal in an all-or-none situation. We must be "for" or "against" each proposed method or type of organization. Yet almost every proposal for education may have some place in the educational process, for some child at some stage of development, for some learning objectives. Our task is to discover the place and proportions of each proposal. Let us look at pupil team learning, not as a method to be used with every pupil, in every subject, every hour in the school day, but as a technique which may prove suitable for certain learning tasks.

In our extensive tryouts of pupil team learning, we have found several types of activities which are immediately acceptable to both teachers and pupils. The major ones are the following: team progress methods in skills instruction; team discussion techniques following individual study or mass presentation; team use of study guides; team practice in oral activities and remedial drills; team work in pupil specialties.

Team progress methods combine the motivating power of individual progress with that of the security of having partners in learning. Since children are stimulated by seeing their progress and by being members of a team, the combination is especially suitable for learning that can be neatly "packaged," such as arithmetic, spelling, language-grammar skills, phonics, map and globe skills, outlining, and recall practice. We have always found spelling and arithmetic to work well in pupil team learning; consequently these are the first subjects in which team learning is introduced in most classrooms.

It should be said at once that the success of team progress instruction rests heavily upon the suitability of the "learning package" to the needs of the group. There must be close adjustment to the varying levels of achievement; if the task is too advanced for the group, frustration results; if the task is challenging, interest will be low. The gradations of the task must be suitable for pupil requirements of progress; slow learners must have more practice at each stage, while rapid learners may skip many steps. The task must be definite, clear, and specific; indefiniteness invites confusion. Obviously, the task must be meaningful and important to the group; enrichment and creative activities should be built in as an integral part of the package. Provision for scoring the results as soon as the task is finished adds to learning incentive and increases effectiveness. The neatness of the package is also important; tasks which are messy in appearance will seem less important to the learner.

These qualities of the team learning package are much the same as are required for "programs" in teaching machines. Team learning packages, however, have several advantages over teaching machines: they require no expensive "hardware," they may be built by teachers, their "density" is more easily managed, and they may employ mutual aid in learning. A speller or an arithmetic book is easily "packaged." A typical adaptation for pupil team learning is *Arithmetic Job Sheets* to accompany *Growth in Arithmetic*, published by Harcourt, Brace and World. The same publisher has produced phonics packages for intermediate grades, *Word Analysis Practice. Fun with the Globe*, published by A. J. Nystrom Company, and the reading and spelling laboratories of Science Research Associates, are learning packages which may be used with pairs as well as with individuals.

Team discussions following individual study or mass presentations seem much preferred by pupils and teachers as compared to the typical recitation in which each pupil recites when called upon. When all members of the class have read the same text, seen the same television program or motion picture, heard the same oral presentation, observed the same demonstration, taken part in the same field trip, or are faced with a problem in planning, a group attack on the review or study questions posed by the teacher

279.

[redacted].

always yields good results. A study recently completed by Culliton[1] indicates that the optimum size of groups in discussion following mass presentation is three. He found retention of learning by groups of pupils to be in the following order of desirable size: three, two, five, and one, regardless of the types of questions used to evoke discussion.

Again, in team discussion, there are several conditions which contribute to successful results. The tasks set must call for a specific written response, usually the listing of answers by the group secretary; to ask a group to "discuss" without requiring a written product is to invite aimless verbal activity. The quality of the questions also contributes to the success of the discussion; selective recall or listing of ideas by categories calls for more thinking than does answering multiple-choice or short-answer questions, although these latter are preferred by pupils. Elaborative thinking questions which require applications, uses, illustrations, or relationships are harder than simple recall questions. Critical thinking questions, in which evaluations are required, are also suitable for team discussion. In all types of group discussion, pupils want an immediate evaluation of the product. This is usually provided by having one group read its answers while others check their lists to find additional or varying answers. It is desirable, too, that the group product be collected and checked by the teacher, although it is not usually marked and returned. We find that "planned heterogenity" is desirable in team discussion, grouping children with different levels of ability together. This practice is supported by research findings which show low correlations of all types of thinking with mental ability and scholastic achievement.

Team discussion methods are used also in classroom planning and are advantageous in improving the flow of ideas in written composition. They are also used in spelling methods which emphasize varied word usage techniques to increase the transfer to writing.

In team use of study guides, children generally work in pairs. These guides are designed to aid the pupils in comprehension; they may contain a glossary in addition to key questions to be answered during study. Questions on the study guide may vary in types and number, depending upon the level of ability of the pupils and the nature of the recall task being emphasized. Answers to the questions in the guide may be printed on the back or on separate answer sheets. At the very easiest level, the questions on the study guide may be presented orally by a pupil-teacher, with a pair of slower pupils finding the answers and reporting orally. A more difficult recall task requires the pupil to read part of the selection, then uncover the questions over that portion of the lesson and write answers. Still more difficult is the requirement that the pupil give an unaided oral summary while his partner checks against a listing of major ideas in the selection.

Team practice in oral activities permits a marked increase in opportunities for pupil practice. In a class of thirty pupils, if one pupil reads at a time while all others are listening, the amount of practice is greatly multiplied by having fifteen pairs of pupils read to each other. In "show and tell" activities in primary grades, small group audiences permit more practice than a single presentation to a whole class. Pairs of pupils may assist each other in flash-card drill on arithmetic combinations or in the dictation of lists in spelling. Oral activities are often uneconomical, in that there are far more listeners than talkers. Only in rare situations does the listener learn as much as the performer. It would be helpful to education if the inventors of teaching machines could design a "sympathetic listener," with a built-in corrector and a self-adjusting praise and caution dispenser. This would relieve the teacher who feels that only she is an adequate audience for all oral presentation of pupils.

Pupil specialties, either curriculum-related or long-term personal interests, may be done either in teams or individually. In the curriculum-related specialty, special topics are assigned a month or six weeks in advance of their presentation to the class. They are supplemented by pictures and exhibits to be unveiled at the

[1]Thomas Culliton. *Team Size in Discussion Tasks*, Unpublished doctoral study, Boston University, 1961.

280.

time when the subject appears in the curriculum. After the report is given, questions are asked by the pupils; then teams of pupils are given questions, usually of the elaborative thinking type, which require them to make relationships of the report to previous knowledge.

What are the psychological factors involved in pupil team learning? One should always be wary of psychological rationalizing, since either side of any question may be supported by psychological principles. However, here are some of the psychological potentials for team learning. With partners there is the stimulus of group activity; mutual support provides security; a team is much more likely to reveal a difficulty in understanding. In the more complex skills, such as problem-solving in arithmetic or word analysis practice, there is an exchange of systems, techniques, and information. Where elaborative thinking is involved, the contributions of one member spark additional ideas from others. Critical thinking is involved in the evaluation of answers; wrong or weak answers are rejected by the group. There is usually a greater number of pupil responses per minute; in team learning, it is always one's turn. It is possible, also, to adjust learning tasks much more closely to pupil needs, providing many levels and types of practice at the same time.

The place of the teacher is still paramount in team learning. The teacher sets the tasks; she reacts to every team product, although she does not mark the group product, but only the interspersed individual tasks which test growth in abilities. She disciplines when the noise of a group indicates non-working noise, usually by having the team members work alone for a period. She is still the "authority figure" but much less so, since much of the recitation is to one's peers. Since superior learners require little teacher attention in team-progress subjects, the teacher has much more time for remedial work with slow learners. Superior learners are guided in library research tasks which reach far beyond the textbook. The teacher decides the balancing of classroom activities: when there will be whole-class presentations, when whole-class discussions will be profitable, when multi-sensory aids will be used, when enrichment activities are necessary, when individual tasks are to be set, when tests are to be given. She generally decides the membership of teams, although the more "democratic" minded teachers may allow more pupil choice.

The usual fears of team learning expressed by teachers before they try it are the following: the amount of classroom noise, the possible loss of discipline, pupils loafing and leaning on the more capable, the possibility of cheating when answers are readily available. There are sensible ways around these presumed difficulties. Few of them arise if the assignments are important and the classroom climate is good. The teacher can readily control the noise level by insisting on lower voices; she can readily detect non-working voices.

Team learning is probably as old as the human race. One can readily imagine a cave man asking a neighbor for advice on skinning a buffalo or for getting a badger out of a hole. Certainly the male graduate student in professional schools has used team learning since the earliest days on the university; the bull session is highly regarded as an effective learning activity. If it had not been invented earlier, it would have been discovered by telephone teams of junior high school girls doing homework. Individual teachers have used pupil teams for many years, especially in rural schools where the multiple grades prevent individual attention to pupils. One wonders, however, why it has not become an established technique in all classrooms, since it seems to fit the nature of the child so well. Certainly, it has much to offer that is not present in lonely, insecure individual study.

281,

91.

113.

## B. UPPER ELEMENTARY LEVEL

### 1. Multi-Media Approaches to Reading Instruction

DAVID ENGLER
Educational Systems Development

MY THESIS is that in the teaching of reading, as in the teaching of almost any subject, books are not enough. This may seem anomalous to some people because books are not only the traditional instruments of reading instruction, but they are also a part of one of the major objectives of teaching reading; we want children to be able and to desire to read books. As a representative of a major book publisher, I am not about to denigrate the book as a teaching tool or as a medium of information and communication. But in education today, more and more people are coming to recognize the contribution of other media to the teaching-learning process. This is true in reading as well as in other curriculum areas, but it is also *less* true of reading than of any other major curriculum area.

This is not to say that important changes have not taken place in the teaching of reading. For example, today there is widespread recognition that no single method of teaching reading is best for all children. Combinations of look-say, phonics, linguistics, and other methods are probably more common and will become increasingly more common than any monolithic system of reading instruction. This, I think, represents a big step forward, one that is in harmony with a marked trend across the grades and across the country toward greater emphasis on individual instruction and independent study. But this new focus on the individual learner requires, in my opinion, more emphasis on how the individual learns than has been true in the past. And such new em-

phasis must inevitably lead to the use of multi-media instructional materials.

People have been talking about individualized reading instruction for a good many years. In the past, this has usually meant offering children reading materials which were most suited to each individual's level of ability and achievement. Today, however, in addition to these factors, there is a growing recognition that there are different kinds of learners and different clusters of modes of learning. Let me define what I mean by modes of learning.

There is the graphic mode, which involves the use of abstract symbols, such as the letters of the alphabet. This has traditionally been the dominant mode of instruction. There is the visual mode, which involves the use of representative images; there is the aural mode, which involves the use of sound; and there is the tactual mode, which involves the use of concrete, manipulative materials.

The plain facts of life are, that in our time, in our society, the dominant modes of communication are the visual and the aural. Examine the day of any school-age youngster and you will probably find that his ears are being assaulted by parents telling him to wash his neck, finish his cereal, and take the dog out for a walk, while his eyes and ears are being numbed by *Captain Kangaroo, Hullabaloo,* or *Batman*. He doesn't get much information from books, newspapers, or magazines. Surely this powerful conditioning is a factor to be reckoned with in planning instructional programs.

It has become very fashionable to say that we know relatively little about how learning takes place and that what little we do know has rarely, if ever, been translated into meaningful practices in the classroom. And, in one sense, it's all true; learning theory has had limited development on a scientific basis and even less application to the everyday problems of the classroom. On the other hand, we have surely muddled our way towards some understanding, however primitive, of how youngsters learn. There is a growing recognition of the fact that each individual learns differently and that our instructional programs must be designed to take this fact into consideration insofar as it is possible and practical. Let me be even more fashionable and quote Jerome Bruner. In his most recent book, *Toward A Theory of Instruction,* he says:

> The fact of individual differences argues for pluralism and for an enlightened opportunism in the materials and methods of instruction. Earlier we asserted . . . that no single ideal sequence exists for any group of children. The conclusion to be drawn from that assertion is not that it is impossible to put together a curriculum that would satisfy a group of children or a cross-section of children. Rather, it is that if a curriculum is to be effective in the classroom, it must contain different ways of presenting sequences, different opportunities for some children to skip parts while others work their way through, different ways of putting things. A curriculum, in short, must contain many tracks leading to the same general goal.

There are, after all, some things we do know—or at least we should know—despite any lack of experimental evidence that they are true.

We know, for example, that every individual is unique. Every individual is unique in the way he looks, in the way he speaks, in the thumbprint that he leaves. Children give evidence of some of these differences from the beginning moments of life. Every individual nervous system, every individual brain is unique. We can make distinctions among individuals in regard to the way they sing, play the violin, or paint.

Why, then, do we so often fail to make these distinctions in regard to the way children learn? Why do we assume that the thirty or so individuals who make up a class all learn in the same way? Or, if we do make some distinctions, why do we limit these to factors of *intelligence*—however it may be defined—and *achievement,* which is only a rough measure of what a child has learned?

Why don't we make distinctions among children in regard to the way they learn? Partly it is because this is a very complex undertaking, and we lack simple and effective instruments for doing so. And partly it is because we don't have teaching tools sufficiently refined to effectively exploit such distinctions.

But these excuses are not adequate to justify continuing to teach at a lockstep or semi-lockstep pace and by means of a

283.

single, dominant mode. There are enough media and materials available to permit virtually *every* teacher to use a multi-media approach to learning in any major curriculum area—including reading. To be sure, this implies a rather primitive application of these media; it implies a shotgun approach that will leave to teachers and students the task of sorting out the best combination of media for any individual. And there is no doubt that there always have been and always will be children who need nothing but the printed page. But there is also no doubt that this is not true of all children, perhaps not even true of most children.

We need research in this area. We need diagnostic instruments which will tell us what kind of learner an individual student is. But even more, we need experience—massive experience. We need thousands of teachers working with tens of thousands of students using a wide variety of materials and combinations of materials. Then we will discover ways of discerning differences among learners and of prescribing different modes of instruction to fit those differences.

We can start now by using the tape recorder and the phonograph to reach the aural learner with sounds of experience, sounds of imagination, and, perhaps most important of all, sounds of language.

We can start by using the motion picture to reach the visual learner with pictures of things he would never see if he traveled the seven seas for a thousand years—pictures of Rumplestiltskin and Rapunzel; pictures of pupae and paramecia looming larger than Pomeranians and Pekinese; pictures of atoms and molecules, orbits and satellites, whirlwinds and whirligigs; even pictures of Dick and Jane. The motion picture is one of the great untapped resources of instruction.

We can start by using the simple and unpretentious filmstrip which can present separately or in varying combinations the audio, the visual, and the graphic modes to the individual, to the small group, or to the large group. Here is possibly the most flexible teaching tool we know.

We can start by using overhead projectors, flannel boards, 2 x 2 slides, puppets, games, and perhaps a dozen other things I've neglected to mention. The important thing is that we start using as many media as possible in an attempt to reach through as many individual clusters of learning modes as we can.

The technology is here. The funds are available. The recognition of the need for a multi-media approach is growing. The knowledge of how best to develop such materials is increasing. It remains for larger numbers of teachers to use the multi-media approach, to discover new and more effective avenues of reaching the individual learner, so that finally we can profitably use that most remarkable product of modern technology — the printed word.

92.

Vol. 5, 1960

## 6. Television

## a. Using Television Interests to Build Reading

NINA T. FLIERL

Television, the newest adjunct to the school curriculum, needs more recognition and utilization by our schools. The home television set, besides providing a togetherness of the family unit, is a window to the world.[1]

Librarians and educators look to interest as the key to reading and doing in any subject area. The television set creates interests and becomes a road to more leisure reading and to wider education.

The high school student who has seen

[1]Thomas E. Coffin, "Television Effects on Leisure Time Activities," *Journal of Applied Psychology*, 32 (1949), pp. 550-558.



Eisenhower or Khrushchev on a TV newstime brings distinct visual and mental pictures of these leaders to a social studies discussion. When students have the experience of televised Shakespeare productions, the English teacher may use an entirely different approach to the study of Shakespeare. The primary reading teacher needs little preparation to introduce a circus story to a reading group—TV circus programs have already done the job. A book, such as *Grant Marsh, Steamboat Captain,* is a natural follow-up for the *Riverboat* TV program. Hundreds of other specific examples could be found, for television provides built-in interest and experience areas as a resource for reading, and indeed for all education. Favorite programs are as much a part of childhood today as jumping rope, playing hopscotch, doing a cat's cradle, or any of the other proverbial child activities.

This study is concerned with the question — can these favorite programs be utilized positively in the classroom? Children have watched and will continue to watch television. Then, can the present television watching be used to increase leisure reading and the general educational level?

One elementary school, the Hamagrael Elementary School in the Bethlehem Central School District in Delmar, New York, was chosen for the study. Here the writer did a continuous observation and follow-through of the reading and TV watching patterns during the course of the study. Only the intermediate grades were included, even though some informal appraisal was done of primary grade viewing patterns.

The Hamagrael School has an enrollment of 385 pupils with two classes at each grade level, K-6. The average intermediate class size is 25 pupils. In addition to the classroom teachers, others include an elementary librarian (3½ days), a nurse-teacher (2½ days), an art teacher (2 days), a music teacher (2 days) and the services of a psychologist, reading consultant, speech therapist, and the writer (a reading teacher). The latter four specialists are shared with the five other elementary schools in the district. The library within the Hamagrael School has a book collection of 4900 volumes, a complete card catalog, a vertical file of pamphlets, clippings, and pictures, and a catalogued filmstrip collection.

This particular school community is fairly typical of the fast growing suburbs with many homes of the ranch house complex. The population is characterized by the younger marrieds with larger families of three and four children fairly closely spaced. Socio-economically it represents a higher income middle class group, drawn from professional people, junior executives, and managerial sales personnel.

The initial survey to find out about TV and reading patterns inquired into the following: the hours spent in watching television each week, the names of three favorite programs, the number of television sets in the home, the number of books read during the past month, and the names of as many of these books as could be remembered. Discussion with individual children, classroom teachers, the school librarian, and with classes helped to substantiate the survey findings.

The TV watching time of these students was a little lower than Witty's recent findings. The range of hours obtained on the first survey was from 0 hours to 40 hours, with the median being 15 hours each week. For this median pupil, the average daily viewing time was two and one-seventh hours. The favorite program at the time of the survey in December, 1959 was *Dennis, the Menace* and was far ahead of all others in student choice. The second place favorite was *Wagon Train.* Other popular programs were *Bonanza, Riverboat,* and *Man and the Challenge.* During November, students read a median number of 4 books in the month, with the range being 0 books to 20 books.

In order to determine whether children's favorite programs could be used to stimulate children to broaden and deepen their reading interests, the two most popular television programs—*Dennis* and *Wagon Train* were used in the study. The main school bulletin board in the large front foyer was the take-off point to carry the Dennis interest into the area of books. For two days a prominent poster read "Hamagrael's Favorite TV Program" followed by a huge question mark. Groups

285.

gathered constantly around this, and always there was lively discussion about the answer. Students were constantly attempting to find out the favorite program from classroom teachers, special teachers, and even from the principal. Interest was high by the time the first bulletin board featured Dennis. A large sign across the top read "If you Like Dennis" and an arrow from a student cartoon drawing of Dennis said, "then you'll like." This arrow pointed to a different book jacket each day. Previously used book jackets were then placed in other spots on the bulletin board. Of course, a small sign informed students of other books in the library. There a display of books was set up, "For Dennis Fans."

A Dennis program was taped on the tape recorder. An introduction was added by the reading teacher along with an ending by students who recommended books like Dennis. Some of the books the students talked about were: *All About Oscar, Eddie's Pay Dirt, Pinocchio, Homer Price, Henry Huggins, the Story of Doctor Doolittle, Bertie and Eddie, The Uninvited Donkey, Further Adventures of the Family on One End Street, Fine Eggs and Fancy Feathers,* and *How Baseball Began in Brooklyn.* These books had been selected by student participants. It was interesting to see the choice of old as well as recently published books.

The Dennis tape was played in each of the classrooms involved in the study. Student response was almost phenomenal. In one classroom the Dennis theme music set off such laughter that the tape had to be started over. A sixth grade class applied the format of the show to a theatre arts project. Character sketches of Mr. Wilson and Dennis were written in a fifth grade English class. A fourth grade class painted a mural of book characters "Just Like Dennis." Soon school rumor was that Dennis had actually been in the Hamagrael School. Two girls excitedly ran up to the writer one morning saying, "Dennis was here in Hamagrael, wasn't he?"

The books suggested by the librarian immediately almost snapped from the library shelf, and then more humorous and family-situation books were added to the display. By the end of the first "Dennis" week, the Hamagrael librarian reported that there had been the largest circulation of humorous books in the library's history.

Some of the appeal of the Dennis show came out in the children's writing. Over and over students said that the show was like real life and was funny. One boy said, "I like Dennis because he reminds me of my little brother." Another said, "The actors show great feeling," and still another wrote, "he acts like any young child, especially when he keeps on asking questions." Another girl said, "I like family books and programs." One of the most interesting writings came from a 6th grade girl who said, "Many parents have little boys and girls much like Dennis. Watching the parents of Dennis will help them to cope with their problems."

The same approach was used with *Wagon Train,* the second ranking favorite program. This time a colorful mural featured a wagon train in a western landscape. Around the wagon train were jackets of books with a western flavor—*Buffalo Bill, The Oklahoma Land Run, Flaming Arrows, Children of the Covered Wagon, Passage to Texas, The Battle of the Alamo,* and *The Coming of the Mormons.* There was also a library display of the same type of books. In addition, dramatizations and writings were done around the same theme under the direction of classroom teachers. At the end of the month's study, the student survey was repeated. It showed that in January students read a median of five books and the range was from 1 to 29 books. The number of books read, as indicated by the student surveys, showed a total of 621 books read in December and a total of 820 books in January. TV watching time again gave a range of 0 hours to 40 hours each week, but with the median being 14 hours and an average for this median pupil of two hours each day.

The survey findings would seem to show that television interests can be used to encourage students' reading. There is a corresponding slight decrease in hours of TV watching. In the writer's opinion an even more important facet of the favorite program approach is the opportunity for the classroom teacher.

Children's reactions tend to show that



the usual attitude toward TV in home and in school is all too often one of unacceptance and disapproval. The home TV set even takes on a "forbidden fruit" aura for the child. Over and over again in the early part of the study children would inquire with disbelief, "Is it all right to watch Dennis?" One boy reported that his father would not allow him to watch this TV program. Even after the initial part of the study, children continued to show amazement that Dennis was not only permissible but could be a part of the school picture as activities revolved around the TV program in the classroom. It soon became apparent that teacher acceptance of a favorite TV program gives the teacher a positive psychological identification with the student. It becomes a nondirective avenue to increasing leisure reading around these interests. Television viewing of favorite programs can be turned to an educational use.

Discussion with teachers and students brought out that students were showing a more critical TV approach. They seemed to gain an appraising eye. Some even made use of an excellent local TV review column. They continued television watching on a somewhat reduced time and seemed to develop more program discrimination. Even with favorite programs, they knew why they were watching. Children need an escape or just-for-fun show as much as the adult viewer.

During the time of the study the Hamagrael teachers viewed the *Dennis* and *Wagon Train* programs. Incidents from the programs could often be applied in the classroom. Two examples are the *Dennis* program mention of *Tom Sawyer* and the *Wagon Train* stories for helping the historical period of the Westward Movement come alive for students. Knowledge of the content of these favorite programs can be a help to the elementary teacher. There is a magic connected with TV characters, interests, and stories which can open doors to reading and learning.

The favorite television programs of children can be a rich resource in the reading program of the elementary school by relating TV interests to the world of books.

Vol. 8, 63



# 5. Large Group Reading Instruction

NINA T. FLIERL

Large group reading instruction involving 50 to 300 students within a team organization provides a unique opportunity for strengthening a developmental reading program. It results in the improvement of teaching methods and techniques and the greater insurance of sequentially developed reading lessons.

The competence of a gifted teacher in a large group lesson realizes benefits for many children instead of only for those in a particular teacher's classroom. Superior teaching and improved instruction result because of better planning, utilization of the finest teachers in a school system, more use of audio-visual and automated aids, increased attention to listening skills, and the outcomes of a programed approach.

When a teacher embarks on large group instruction, it is almost inevitable that his best teaching will be an outcome. First of all, the teacher is chosen for the large group assignment because of a special talent. Thorough and detailed planning, an absolute necessity in large group instruction, gives all students the finest lesson presentation possible. The teacher, who incorporates a successful teaching experience into what is still an uncharted area, develops new and different techniques. Already today there is an explosion in teaching methods for reading as great as in the field of science. The master teacher and cooperating teachers must be selective in the teaching content and must choose carefully the steps or items which are important enough to be included in the lessons.

The considered use of automated and mechanical aids and visuals is part and parcel of large group instruction. Through their use each step or item in the lesson sequence is assured of its appropriate and timely teaching illustration. Inclusion of art consultant experts is standard practice for teaching teams to help in the construction of drawings, cartoons, maps with overlays, graphs, slides, and other items. Not only does this professional help insure excellent visual aids but in facilitating the production the teacher is encouraged to make maximum use of well-produced visuals to illustrate steps and points in each lesson.

The large group reading lesson with the programing of learning items and with exact directions develops curriculum content in a logical manner. Increased ability in listening skills is a by-product of the lessons. Furthermore the teacher is required to teach each lesson a step at a time with each step continuing from the previous step, and the student learns that he must be ready for each step in the lesson. Students readily adjust to the need for attentiveness to each instructional step or item. Lesson guides to accompany each large group lesson help participating classroom teachers to further student readiness and to correlate instruction with the large group lessons.

Because of the required careful sequence of learning steps, a programing and teaching-machine philosophy is a necessity in large group instruction. The student's activity insures reinforcement, and his immediate knowledge of the correct response aids reinforcement of learning. The student participates actively with this programed approach to the lessons, with the resultant learning strengthened at each step.

Greater provision for individual differences can be realized with the appropriate use of large group instruction in a team-teaching organization. The traditional grouping organization of the graded school with its concomitant lockstep was firmly entrenched early in the 19th century and has continued since then. It was the reading field which spearheaded the breaking of this lockstep by increasing provision for grouping within the traditional graded classroom organization. The common practice of grouping for reading instruction is now so widespread that children glibly announce, "I'm in the top—or middle—or bottom reading group." While attention is given to individuals who fall outside this range, either at the lower or upper ranges, there is universal agreement that much more is needed in order to fully provide for individual differences.

One of the developments which gave an impetus to large group instruction was television instruction which combined the TV teacher and the classroom teacher into a teaching team. The advent of team-teaching projects in the last decade also brought large group instruction into being. Subsequently, experienced classroom teachers as team members found that some of the reading curriculum could be taught as effectively to a large group as to the traditional grade or the groups within a grade. In fact many felt that there was superior learning on the part of pupils with some of the instruction. Scarcely an area in the developmental reading program now exists that has not been taught in large groups. This includes word analysis, spelling attack, stimulation of reading especially with author interviews and special events, improving comprehension, study skills, and others.

Goodlad has recently said, "This is a historic point in educational history, not because of any one event but because so many things are happening at the same time and a lot of them fit together." This is especially true of large group reading instruction which could only succeed because of three major developments:

1. Refinement and improvement of diagnostic procedures in reading so as to pinpoint particular needs of children
2. More knowledge of and research into the sequential development of language
3. Automated advances including teaching machines, the overhead projector, and similar aids

The key to large group instruction is the placing of children together with a common denominator of needs. Virgil Herrick has said that present day diagnosis makes it possible, first of all to distinguish among categories and skills of reading, secondly to know the varieties of reading materials to achieve these skills, and third to utilize the instructional methods to develop the particular reading skills.

With specific and continuing diagnosis a child can be placed at the proper step in the reading sequence and given the appropriate instruction to take him to the next higher level of competence. If proper diagnosis is possible for one child, then it follows as feasible the combining into large groups those children who have common instructional needs.

Increased attention to the study and research about the sequence of language and in the field of linguistics makes possible the orderly progression by students from one reading level to another. It assures continuity, with no gaps in the reading experience. Today's teachers and administrators are increasingly sure of the goals of reading at each succeeding level.

An infinite number of administrative

arrangements to provide for more flexible grouping of students to meet students' individual needs is possible. Large group instruction may be used for two days each week, and three days may be used for small group and individual help. Or, the large group may be used for the introductory presentation of a unit or a particular story, or for films, for visiting speakers, for pupil reports, or for dramatizations. Small groups may then be used for discussion, review and reinforcement of lesson items, for reteaching, or follow-up activities, and for individual review. Another arrangement allows for the special set of reading skills or study attacks particular to content subjects such as science or social studies to be introduced in large group instruction. Subsequent practice for the specific study skill may be provided in regular class situations. For particular needs such as spelling or increasing reading rate or a comprehension skill, large group classes may be organized with the appropriate follow-up in small groups.

With large group instruction an integral part of the developmental reading program to provide for individual differences, reading grouping needs should point up the planning for automated classrooms. In this setting the large group instruction teacher uses the overhead projector with two screens, closed and open circuit television, filmstrip and slide projector, film projector, recording equipment, and other aids to offer the best possible presentation for each lesson. In addition, this large group teacher has professional help for making visual and audio lesson aids, secretarial assistance, and school time for planning.

The superior teaching and improved resultant learning of large group reading instruction methods and techniques offers some of the solutions to the problem of quantity and quality of reading instruction in American education.

288.
[redacted],

94.

Vol. 10, 63

## 2. The Teaching of Word Analysis Through Perceptual Conditioning

410.

GERALD G. GLASS
Adelphi University



IT IS MOST important that we carefully and objectively examine what is involved in the teaching of word analysis. It is this writer's objective to demonstrate that many of our "approved" methods are either unreasonable or unwarranted in light of the tasks involved. Some of these may actually be detrimental to the development of proficiency in word analysis. The following points need to be made.

The teaching of word analysis should not be considered the teaching of reading. Reading, at even its simplest level, is responding to meaning. Just "calling" a word is not reading. (We took a pound of Flesch when someone said it was.) In a sense word analysis is a pre-reading ability. It could be considered that "reading" comes into play only after one knows the sound of a word. Actually, even if this were not accepted, the problem of meaning in word analysis work below the middle grades would rarely be a problem. This writer surveyed the new words introduced in major basals and (to no one's surprise) close to 99 per cent of the words were already within the average youngster's vocabulary. Because of this an efficient word analysis "method" need not include the teaching of basic meanings, for to do so may be superfluous.

Word analysis work may actually be hampered by having the word analysis skills taught utilizing words within a phrase or sentence context. Too often is the context (and not the early grader's ability to discover phonic and structural elements in words) a major factor in identifying the correct sound of a word. Words in context may undermine the need of a developing word analysis skill's coming to the fore and being practiced. Context (and pictures) frequently give both the student and the teacher a spurious idea of the actual ability of the student in word identification. It leads to apparent ability vs. actual ability. It is best that while the student has the helpful guidance of the teacher available he should not also have the contextual aids available. Most often if one can "sound out" out of context one will surely be able to identify the word with the added clues of context when the reading is for actual content learning and not word analysis training. Many of the word analysis difficulties which are "discovered" by middle grade and junior high teachers are the result of the context's becoming too difficult to shelter the previously concealed weakness in word analysis.

It is dishonest to say that words in our language can be sounded out phonetically, i.e., letter-by-letter sound. Other than that there are over 2,000 ways the twenty-six letters of our alphabet can be sounded. The sounds of the vowels (the most difficult problem in word analysis) are usually controlled by their place in the syllable. So, one cannot discover the sound of any vowel before first determining the syllable structure of the word (structural analysis). The *e* in pepper can only be known (if you are really using "approved" techniques) when you decide that the *e* is within a first syllable and is followed in the syllable by a consonant that is not part of a digraph. Only *after* this process of syllabication can phonetic analysis be used. However, it is also dishonest to advise the use of syllabication as a technique in word analysis. The narrowness of its rules, the contradictions, the complexity of its "ifs," the mental gymnastics necessary to store information in order to decipher a word of two or more syllables, makes it ludicrous to suggest that the technique be used in word analysis. (In fact, one set of rules actually requires that you know the sound of the word [*motor, rapid*] before you decide where the break occurs to discover the sound of the word!) Fortunately it is of little import. That people use syllabication to discover the sound of a word is a myth now too long in the literature (almost every methods book on the teaching of reading). Syllabication, in populations totaling over 500 adults and children, was applied *after* the word was identified, *never* (yes, not once) before the sound of the word was known. To this point the writer seriously questions the necessity of the teaching of meaning with word analysis, the use of context and contextual clues in the teaching of word analysis, and the use of syllabication and phonic principles. Remember, we are concerned with word analysis and not with the operationally defined problem of teaching reading.

Other factors that, because of space limitations, can only be mentioned here, should be taken into consideration when attempting to explore what is involved in learning and utilizing word analysis techniques.

The Gestaltists have long ago made us aware that the size of a configuration has little or nothing to do with the person's ability to "learn." It is the familiarity and the meaning one can bring to the object that will determine what one will do with it. The eleven letter word *grandmother* for obvious reasons is less difficult than the four letter word *here*.

We know that objects composed of discrete elements initially can be seen as wholes and then, if necessary, seen as composed of various parts. A child, by the nature of his being, first identifies a car, a house, and a toy before he needs to deal with the parts which make up the whole.

We can "learn" to see what we want to see and subordinate what we do not. Hold a pencil up to someone and say only "What do you see?" Everyone (yes, everyone) will say "a pencil." Actually, the observer will see a great deal more. Your fingers, hand, arm, shoulder, head, torso, the area behind and around you, etc. are in his view. But he has "learned" to discriminate out of the field based upon his learned mental sets. These factors suggest that in word analysis it is possible, and maybe even natural, for a child to find a three- and four-letter combination such as *ing, ate,* and *ight* as easy to learn as single-letter phonic sounds; such phonograms may be seen as *one whole* rather than three or four separate wholes. In addition, as one learns to "see" only a certain part of a complete view depending upon one's mental set, one might be able to look at an unknown word like *distenationing* and see only what one has learned to see.

The reader is advised to say the unknown word aloud. Did you read the word at sight or did you sound the word out? You sounded it out. Did you use

[redacted].

289.

syllable and phonic rules such as vccv, vcv, open syllable and closed syllable, two vowels together, etc.? Of course not. Did you notice the little words in the big one and use the sound of these words in the analysis; e.g, *at, on, in, nation?* I hope not.

What then was used? The reader had no choice. He has been conditioned through his consistent and extended dealings with words used in American writing, uniquely to notice clusters of letters in an unknown word that seem naturally to come together. We see (and hear) within the whole word *dis/ten/a/tion/ing* or possibly *d/is/t/en/ation/ing,* but never the */ste/* or */ena/* or */tio/* or */nin/* (all of which are orthographically possible). Any activity, then, which fosters seeing the "correct" clusters would contribute a great deal toward developing word analysis proficiency.

The belief of this writer is that unknown words are correctly identified through a process which utilizes a conditioned perceptual set that scans a word for its structural sounding elements (letter clusters) as they have been historically consistent in the reader's experience. The reader of this article is asked to examine the unknown words *"blassment, trepulation, trom* and *deplistrationer."* It is most certain that you "read" the words letter-cluster by letter-cluster, as you have learned these letters arrange themselves in your experiences with the language. It is almost as if there were unique spacing between the common structures in the word. You probably used nothing more than your instant (conditioned) knowledge of these "phonograms." (For words which have structures that do not fit a consistent pattern [*police, great*] no word analysis method can apply). If we agreed upon how successful readers identify unknown words, it would be fruitful to backtrack and attempt to develop ways of learning word analysis which would be consistent with what we desire the end result to be.

An approach called "perceptual conditioning" has been developed to be consistent with the positive factors which seem to be valid in word analysis. The "method" requires youngsters to examine known words (out of context) both visually and auditorially in a way that would foster the correct visual clustering of letters. Mental sets to see "correctly" are controlled and fostered by the teacher's complete direction of how a youngster is to examine a word and identify the sounds within it. A note should be made here. In the word analysis process it is important not only to identify sounds in a word and the letters that make that sound, but it is crucial that a reader see letters and then come up with the sound that the letters make. One is from auditory to visual and the other from visual to auditory. Both skills are necessary for effective word analysis.

## Perceptual Conditioning

Words to be used must be within the child's listening vocabulary and listed out of context. The child should either know the whole word or be told its name. Youngsters are learning to identify sounds in words correctly so that they will be able to transfer these learnings when they read unknown words.

The whole word must always be presented. Parts of words should not be covered up then exposed. Letters should not be added on to structural elements to form the whole word. The elements (phonograms) must be seen with the letters before and after as when seen during reading. The *ong* in isolation is not the same perceptual image as the *ong* in stronger. Readers must perceptually isolate the letter clusters *within* a word (as with *distenationing*).

The teacher directs how a pupil will examine a word. She *always* directs the examination with two crucial questions to develop mental set. These are: "What letters make what sounds?" "What sounds do what letters make?" For example, in the word *black,* what letters make the *buhll* sound; what letters make the *ack* sound? In the word *black* what sound does the *bl* make? What sound does the *ack* make? Here we have required the student to examine the word in a way that we know will be of benefit to him when he sees other words with the same phonograms. We required that he examine the letters (cluster fashion) and apply a sound. We did not allow him to examine the word in any way other than what we think would be consistent with

the way he will examine words when he becomes proficient in word analysis. He did not, and never will be allowed to, insult the integrity of a digraph, phonogram, or any of the meaning or pronunciation units which are structurally consistent in our written language. If the youngster is consistently required to examine whole words in terms of these common internal structures (e.g., *team, dreaming, streamline*) utilizing the mental set questions, he theoretically must condition to the phonograms as they are visually isolated as a part *within* the whole word. This, as has been suggested, is just what we want.

The question that immediately comes to mind is how many of these phonograms or letter clusters do we have in our language? Are they so numerous that it would be unreasonable to become conditioned to their existence in words. Or, in fact, do they really exist frequently enough for us to depend upon them in sounding out unknown words? This writer and his staff have intensively examined the words used in the basals of the first three grades. All new words were examined to determine structural sound make-up. It was discovered that less than 100 vowel phonograms are included five or more times in the new vocabulary of the first three grades. Only 42 vowel phonograms are used 10 times or more. If these vowel phonograms could be consistently identified in whole words the youngster will have the vowel sounds introduced in over 90 per cent of the new vocabulary. For example, it was discovered that *ing* was repeated at least 109 times in new words; *er* 105 times; *ar* 47 times; *ad* 17 times; *ear* 6 times; *ore* 5 times. (The complete set of approximately 100 vowel phonograms and their frequency is available through the writer.) The reader should recall that the writer feels that it is just as easy to learn that three or four letters make one sound as it is to learn that one letter makes a sound. Also, it should be noted that if clusters of letters are taught as producing a sound, rather than single letters, the problem of teaching vowel sounds and their variations is virtually eliminated. A vowel here makes a sound as part of a letter cluster not because it has a place in a syllable or any other such "rule." Careful count was made of the consonant blends and the consonant digraphs. It was found that when teaching word analysis through perceptual conditioning, these sound elements are learned relatively easily compared to the vowel phonograms; that their random distribution throughout words which are controlled just for the vowel phonogram gives enough repetition to bring about the conditioned effect when the consonant elements are seen within a whole word.

To date the approach has been used by the writer, his colleagues, and graduate students. The results have been gratifying enough for us to do continued research. Lists of words have been developed which include the specific vowel phonograms that are to be worked with during the lesson. For a ten-minute period pupils are directed to examine selected words according to the rigid requirements discussed. If this is done *consistently* for two ten-minute periods a day, each of the five days in a school week, the writer predicts that within a three- or four-month period the average first-grader will be able to analyze unknown words with the proficiency of the average third-grader. The only words he will not be able to sound out would be those words which need to be learned at sight. There is evidence that this approach should be considered where early training in reading is desired. Because it minimizes factors of an emotional and intellectual nature it may be "easier" and therefore applicable.

95.

The Individualized Rdg. Pgm: a guide for Classroom Teachers: IRA Conf. Proc., Vol. 11, Part 3, 1966. Lyman C. Hunt Jr. (Ed.),

PATRICK GROFF

SAN DIEGO STATE COLLEGE

# 6. Individualized Reading and Creative Writing

GOOD TEACHERS over the years have always used the stories, poems, letters, essays, and research reports which children write as vehicles for developing better understanding and control of the particular factors of composition as well as a means of improving reading and listening abilities. It is common today, therefore, to see first-grade teachers developing an experience chart as a group composition-reading experience (5). In the ability-grouping program of reading these charts are used to introduce vocabulary and concepts, to give repetition to the "new" words in the reader, to provide practice in word analysis, and to check comprehension. In the middle grades almost all teachers on occasion have children read their written compositions aloud while their classmates listen. The proponents of individualized reading do not disagree with these composition-reading activities. They do argue, nevertheless, that the use of writing should be used in the development of reading in a more direct and emphatic way.

For example, in individualized reading the writing children do is utilized for their reading development in more creative ways than were seen above. Ordinarily one might say, "Seldom do all children create at the same time. As a matter of fact, creative writing is really only for some of the children some of the time" (*9*:16).

But there are no such qualifications with a reading program oriented toward the creative-language approach. With this approach in the first grade the teacher continually encourages the child to tell about the unique aspects of his life in a number of ways. He orally verbalizes his impressive experiences, he acts out his happiest moments, he paints or draws of those events nearest and dearest to him. At this point the teacher begins to record these outpourings in the child's language. She writes down in his own lexicon a line or two of the experiences the child has

292

shared with his classmates. She describes, as the child might have described it, what his dramatic behavior exhibits. She makes note of the many perceptions of the size, color, shape, position, spacial arrangements, and internal details of objects he exhibits through his spoken language. The pupil in turn dictates to the teacher what to him are the important features of his artistic or graphic expressions.

The content from which the child will learn to read his first words and sentences is taken from this stockpile of first-hand language. As she records the child's responses, the teacher-secretary makes sure that concepts, vocabulary, sentence structure, and usage are highly respected. It is unlikely these sentences will read as do the traditional readers; "Run, Tom! Run, run, run!" or as do the newer "linguistic" readers; "A fat frog sat on a raft." This respect for the child's natural language is important so that when he reads it back, it rings true; that is, it corresponds to his inner voice, thoughts, and emotional attachments.

## Language-Experience Approach

This process has come to be called learning to read through experience or the language-experience approach (*6, 8*). Preliminary to the writing of stories there must be, as implied above, many instances in which the pupil tells or shares his personal life, in which he reacts to the lives of his classmates, in which he listens to stories from his teacher, and when he tells or dictates stories back to her. From these procedures the child comes to realize that written language is recorded speech and that he has a unique speech-personality worthy of approbation from his teacher and classmates.

## Entry into Writing

In their experiences with the language-experience approach many teachers have recognized that one of the smoothest entries into the act of reading via children's experiences is through the words the child uses to explain his drawings. It can be said almost without fear of contradiction that all children can draw and then tell about what they drew. Since children find this mode of personal expression so natural and fulfilling, they readily label their drawings. These become the prime material of first-step reading.*

*Even in the middle grades it has been observed that when children first draw a series of pictures illustrating the important points in a plot, and then write a story about these pictures, the structure of the story noticeably improves.

293.

As the child's powers of word recognition grow so will the length of the dictation his teacher records. This dictation the teacher often takes as children explain their pictures or tell their stories within a small group. The group enjoys the picture or story; the teacher puts the content of their enjoyment into written form. Whether the child's personal language should be recorded here is problematic. "One of the values of the personal-language chart is its invitation to use *real* language. It should be enjoyed and then discarded or erased" (*6*:48). Frequently, however, these illustrated stories are stapled into "books"; placed in a classroom reading center; and reread aloud and independently by the composer, his teacher, and classmates.

## Language-Experience in Middle Grades

The language experience activity does not end with the primary grades. In fact, as children's powers of written expression improve, the enjoyment others have in these writings correspondingly expands. Thus, in the middle grades it is not unusual for the writings of some children to actually compete with the works of professional adult writers for their classmates' attention. Many middle-grade teachers who have maintained a constantly expanding and changing classroom center of children's writings also find these materials provide great incentives for other children to write. Thus, the teacher who encourages children to write for the enjoyment or edification of others can create the most favorable attitude toward and conscientious respect for readability from children who, without this spur, are seen to grow increasingly careless of this aspect of written composition.

The use of the language-experience approach in the middle grades has other values. Principally, it tends to restrain a tendency by teachers at these grade levels to fragment the language-arts program into a number of isolated subjects, each of which is based on a separate content and is given its own parcel of time. As it integrates reading, spelling, listening, writing, handwriting, and speaking, the individualized program saves badly needed time and gives many additional opportunities to practice several much-needed language skills in close relationship to a common goal of learning to read.

## Writing Builds Vocabulary in Individualized Reading

In the language-experience approach to reading there is conspicuously absent the concept of vocabulary control. That is, there is little attempt

[redacted]
294.

made to shape children's independent or dictated stories into a grade-level word list. There seems almost no danger in this procedure, however, since children in their language practices do, of course, use all the so-called high-frequency words found in the various word lists. It can be said, moreover, that a mastery of the recognition of these highly functional words is more likely in an individualized language-experience reading program because of the natural language context in which the child reads. Here each story the child reads is directly connected to his recorded life experiences and thus to that for which he has relatively high emotional attachments. With the individualized approach there seems little need, therefore, for the teacher to strain for the tedious repetition seen in many experience charts:

*Our Zoo Trip*
*We saw a tiger.*
*We saw a lion.*
*We saw a bear.*
*We liked the trip.*

In the individualized approach a more likely result of writing about this trip would be:

*How I Feel About the Zoo*
*I was scared when the tiger snarled and swished his tail. The bear did tricks and made me laugh. Then I felt OK.*

If one accepts the idea that writing words tends to aid in word recognition and retention or that what a child writes he can read more easily than what an adult writes for him (because it is more important to him), then it follows that the child-written story will be more effective in developing vocabulary. The teacher-controlled story, its lack of vocabulary control notwithstanding, is obviously not modeled after the basal reader style of writing but after natural speech patterns of children.

The assumption of the importance of vocabulary control in written materials in the middle grades has also come into question. As Dechant says:

> The principle of vocabulary control apparently used in basal materials may not be valid. Vocabulary control is more than simply limiting the number of words and their rate of introduction. Frequency of use is not

[redacted]
295.

a valid criterion either, and yet, these seem to be the primary criteria of control in the basal series (*3:*203).

Advocates of individualized reading in the middle grades through individualized writing would add that the personally emotional stimulus of a word, and the individual's need for it, will be a more effective control on its use than will the frequency-distribution scheme so often employed.

## Sharing and Reporting Through Writing

As is explained elsewhere in this teaching aid, a child under the IRP reads books of his own choice, for his own purposes, and at his own speed. In partial exchange for this freedom and self-determination, he should share with others in small group sessions the pleasure, knowledge, and appreciation gained through reading. There are many activities that can be offered the child as means to share or report in this way (*4*). The child might read aloud or give an oral report on parts of the book, dramatize parts of it, make an artistic expression of it, or write about it. Through the written report the child may find more rewarding and longer lasting reactions from peers and teachers than through oral reports.

The teacher should prepare a list of writing opportunities and post it conspicuously so that the child will feel he has a wide choice of topics. Such a list might suggest that, for the book he reads, a child could write

an opinion of the book,
a biographical account of its author,
a letter to the author or publisher,
an advertisement for it,
descriptions of a few favorite characters,
an original story based on it,
an imaginary episode that could be included in the book,
a parody or satire of the book,
a television playlet based on it,
a new character for it,
what the book contributed to an ongoing research project,
five improvements that would have made it a better book,
how the book is like or different from the reader's life,
a song or poem based on the characters or story,
a different ending for it,
an invitation for others to read the book,
a list of questions about the book,

296.

a few riddles about the book,
several clues as to the identity of the book,
a list of interesting words or sentences from it,
a list of things learned from the book,
an outline of its plot structure,
a plan for a demonstration of something from the book,
a comic strip based on it,
what might happen in the next chapter of the book, or
what the book would say about itself if it could talk.

Pupils also find it enjoyable to rewrite the book as a story for younger children; or as a report by an on-the-spot reporter; or as a fable, myth, or legend; or with a change of setting or locale.

Basically, children fail to write because they have not had enough memorable detail in their lives to stimulate and organize their thinking and language. Individualized reading provides one way to make up for this omission. As children explore large numbers of books of interest to them, they also grasp a large number of suggestive and energizing items which can kindle in them an urge to write.

Individualized reading can also help the child who wishes to delve deeply into a topic of interest and to write a "research" report on it. Through his wide reading from several sources the child is more likely to be able to answer basic research questions. "What do I want to know?" "What key works and words do I look for?" "What are important questions to ask?" "What will be my outline for my research report?" Newman (7) suggests the child sign a "study contract" for individualized reading for research to include these headings and the date the research will be completed. Files of all these writings can be kept by the child which will help him study the development of his abilities to record his experiences and determine the aspects in composition in which he needs to improve.

## Children Record Individualized Reading Experiences

Children under individualized reading must take much of the responsibility for keeping records of their experiences. In this way, teachers are released from unnecessary checking and accounting. It has a secondary importance, too, in giving further purpose for writing skills.

The records children keep (a folder for each child is called for) can be in the form of questions the child answers about individualized reading

297.

(*4*:122-128). He may be asked: "What kinds of books do you like?" "Why?" "What specific titles?" "What authors would you like to be?" "Where do you get your books?" "How do you choose your books?" "How do you know you will be able to read them?" "What do you do when you see a hard word?" "When, where, and how much do you read?" "Do you like individualized reading?"

To learn more about his pupils under individualized reading, the teacher may want them to use a book wish (what I wish books were like), to finish an incomplete sentence inventory (e.g., I work best when . . .), or to write a reading autobiography (*2*:35-36).

There are other aspects of record keeping that involve writing. The child can write lists of difficult words and phrases from the books he reads. Personal dictionaries of such words can be written on separate pages of paper stapled together into "Word Books." He can contribute short written comments for inclusion in a chart or bulletin board centered on reading books on a certain theme (e.g., foreign lands, history, fantasy and mystery, animals, and learning to get along with people). The title, author, length of time it took to read a book, and a short comment on it can be written on cards which are filed alphabetically for use by other children.

To give him a greater sense of continuing accomplishment and to help replenish his interests in individualized reading, the teacher can suggest the child keep a daily record of how he spends his time in individualized reading. Such a record might read:

| | |
|---|---|
| Monday | Looked for a book on early Americans. Found *Ben Franklin of Old Philadelphia* by Margaret Cousins and *Benjamin Franklin* by Ingri and Edgar d'Aulaire. Like the last one better. Read 20 minutes. Wrote the hard words on cards. |
| Tuesday | Met with Mr. Groff for our conference. Showed him my hard words. Practiced my hard words with Chris. |
| Wednesday | Finished 20 more pages in my book. Put the name of the book on the "Who Reads What" chart. Wrote some questions about the book for sharing period. |
| Thursday | Et cetera. |
| Friday | Et cetera. |

[redacted]
298.

## Summary

With the realization clearly in mind of the close relationship of reading and writing and the realization of the countless ways abilities in one of these areas carry over and reinforce skills in the other, the teacher using individualized reading makes constant use of writing as an aid to reading development. Moreover, the focus of this discussion has been that individualized reading offers greater potential for stimulating functional and creative writing than might otherwise be possible. With this approach the child each day writes the stories he reads, shares his reading through writing, and keeps written records of his experiences. The teacher finds it less arduous to improve the language skills involved in these processes. Finally, the possibility of maintaining language arts as a truly integrated program seems much more likely if the language-experience activities become an integral part of the individualized reading program at all grade levels. It is worthwhile to remind oneself of this fact, despite the fear of belaboring the obvious, since the importance of language experience has been overlooked in some discussions of individualized reading (*1*).

## References

1. Barbe, Walter B. *Educator's Guide to Personalized Reading Instruction.* Englewood Cliffs, N. J.: Prentice-Hall, 1961.
2. Darrow, Helen Fisher and Howes, Virgil M. *Approaches to Individualized Reading.* New York: Appleton-Century-Crofts, 1960.
3. Dechant, Emerald V. *Improving the Teaching of Reading.* Englewood Cliffs, N. J.: Prentice-Hall, 1964.
4. Draper, Marcella; Schwietert, Louise H.; and Lazar, May. *A Practical Guide to Individualized Reading.* New York: Board of Education, 1960.
5. Herrick, Virgil E. and Norbovig, Marcella. *Using Experience Charts with Children.* Columbus: Charles E. Merrill Books, 1964.
6. Lee, Dorris M. and Allen, R. V. *Learning to Read Through Experience.* New York: Appleton-Century-Crofts, 1963.
7. Newman, Robert E. *Language Arts of Individual Inquiry Unit Five.* Chicago: Science Research Associates, 1966.
8. Stauffer, Russell G. "A Language Experience Approach," in *First Grade Reading Programs* (James F. Kerfoot, Editor). Newark, Delaware: International Reading Association, 1964, 86-118.
9. Wilt, Miriam E. *Creativity in the Elementary School.* New York: Appleton-Century-Crofts, 1959.

[redacted]
299.

96.

Vol. 7, 67

# 17. Individualizing the Reading Program

PATRICK GROFF

The principles of individualized reading have been explained in detail recently (1, 2, 7). Briefly, these are that the normal child, being actively curious, will seek reading experiences consistent with his abilities, capacities, interests, and energies. His motives for reading are best satisfied when he is allowed to choose, under guidance, reading materials that fit his individual characteristics. He will pace himself at the rate at which he will best learn to read. This is enough to ensure much successful reading and little or no failure—failure to mean here falling behind the pace set by an ability-group or a grade standard.

In practice, individualized reading works like this. The child is given the opportunity to select which reading materials he prefers. He moves from pre-primers to trade books and more advanced textbooks at an individual rate. The teacher holds individual conferences with him as often as possible to evaluate his progress and diagnose his needs. While silent reading generally is done individually, children with similar problems can be grouped for drill sessions if such are shown to be necessary. The child's reading interests and tastes also are extended and heightened through teacher guidance in the conference. A written record is kept for and by each child. A typical teacher's record would include test scores, books read, word attack, comprehension, and oral reading problems. The child shares what he has read with his classmates in small groups as well as with his teacher.

There obviously is more child control of his learning with this approach. It is said more of the child's purposes for reading are satisfied since he is not required to conform to preconceived notions of his individual needs. There is no "slow-group" stigma. It is felt that elementary teachers, not college-bound authorities are here given the major responsibility for teaching reading. The quantity and variety of reading is given greater emphasis, as a consequence.

A typical individualized reading period would run like this: (a) a short planning session by the whole class to set the goals for the period; (b) individual silent reading and/or related activities; and/or pupil-teacher conferences; (c) supervised small group sharing; and (d) evaluation by the whole class for the progress made toward goals.

The reports of results gained through this approach have indicated, with few exceptions, that pupils under it make normal growth in reading. They are said to enjoy it more than ability-grouping, perhaps because of the materials used in ability-grouping. Of the children I studied, 84 per cent said they liked "library books" better than "readers" (4). These children were in essential agreement with advocates of individualized reading as to why this was so. Pupils are said to exercise more self-direction and develop greater love for reading under individualized reading. Reports indicate teachers using it feel more self-reliance, and have more interest in teaching reading.

There are many obstacles that will keep this rather simple-appearing approach from operating effectively, nevertheless. A primary question is the teacher himself. It is not likely all teachers will have success in using individualized reading. Here a teacher must know more than how to use a teacher's manual well. He must clearly understand the reading process, know how to teach for all the objectives of reading (have knowledge of word analysis skills at his fingertips, for example), and be able to establish independent work habits in children. He must know children's books. He must have a desire for adventuring in

[2] I refer to such well-known linguistic works as Sapir's *Language* (1921), Bloomfield's *Language* (1933), Fries' *American English Grammar* (1940), Bloch and Trager's *Outline of Linguistic Analysis* (1942), Pike's *Intonation of American English* (1945), Trager and Smith's *Outline of English Structure* (1951), Fries' *Structure of English* (1952), Gleason's *An Introduction to Descriptive Linguistics* (1955), Paul Roberts' *Patterns of English* (1956), Lloyd and Warfel's *American English in Its Cultural Setting* (1956), Noam Chomsky's *Syntactic Structures* (1957), W. Nelson Francis' *The Structure of American English* (1958), a volume of articles edited by Allen, *Readings in Applied Linguistics* (1958); and a number of newer books by Carroll, Gleason, Hockett, Roberts, Warfel, Whorf, and others. This is a selective list; a complete bibliography of books and articles published during the last thirty years would run to many pages.

308.

teaching reading. Some of us, we must admit, are too insecure to try this unique and demanding way of teaching. Imperative are a knowledgeable administration and a helpful, creative supervision to stimulate the learning of the individualized approach through observations, discussion, reading and practice.

A second problem is the child. Not all children or all classes have the emotional stability or social maturity to work independently. Usually there are in every class some children who have the necessary self-discipline for this approach, however.

A third obstacle is the lack of books. It has been recently reported that about two-thirds of all elementary schools are without the use of libraries. Certainly if children are to choose books for wide reading, there must be a large selection of books at various interest and readability levels. Too, there needs to be developed faster ways to estimate the readability of these books. Someone, in addition, should write a descriptive catalogue of good books that would include an estimate of their difficulty, a resume of their contents, a list of comprehension questions that could be asked for each, and citations of passages suitable for oral reading. This probably is the most badly needed aid of the teacher of individualized reading.

A fourth barrier to the establishment of this approach is the lack of emphasis upon this plan in college methods of reading courses. They generally maintain the status quo of reading instruction therefore rather than break new ground (5). Therefore, almost all the teacher must learn about individualized reading at present comes only through in-service education.

This is likely because of our final obstacle, the commitment of most reading authorities to ability-grouping in reading. The writers of textbooks, meant for use with ability-grouping, are not likely to be enthusiastic over individualized reading, for obvious reasons. Administrators with workable ability-grouping programs also are difficult to convince they should change. From such groups comes the criticism of the approach. Some of the derogations are justified. Some I feel are overly defensive or reactionary.

Justified, it seems to me, is the criticism that individualized reading is not well enough organized; that its procedures are irregular and indefinite. There should emerge more regular procedures as the approach matures and increases in popularity, however. Advocates of individualized reading are mistaken, on another count, if they assume that children do not occasionally like to come together in groups to read the same material. Children need variety and social contact with any approach that is used. In my opinion, defenders of the approach also should admit that a structured word analysis program should accompany the wide and varied reading that is done. (Personally, I believe one of the linguistic word analysis programs would do.)

On the other hand, it is unfair to conclude that individualized reading will not teach children to read independently. In this sense it can be as "basal" a program as is the ability-grouping approach. There is enough evidence that children make normal gains under it to go ahead (6). In light of this, the charge that it must await a scientific test of its ideas smacks of obstructionism. One must ask if all or any of the major reading schemes now in print tested the effectiveness of their method against their existing competitors before being offered for sale. Actually individualized reading is being put to more critical comparisons than any previous approach.

When opponents of individualized reading question whether it develops all the aspects of reading, one infers they believe ability-grouping does. What evidence is given for this alleged superiority? Only the reassurance that all the skills are "covered" in the basal reader. Advocates of individualized reading believe, of course, that wide reading in a variety of materials for a number of purposes is just as likely to develop all the skills. Until objective evidence is offered from either side the question will remain empirical.

Individualized reading has been accused of neglecting readiness for reading, again with the implication that ability-grouping procedures provide enough but not too much readiness. At this writing I have second grade pupils under ability-grouping read to me the next story in their reader, *i.e.*, the one for which they have not had readiness preparation with the new words.

[redacted]
301

So far, I found that 44 per cent of the words not recognized were "old" words for which they were supposedly prepared. Let us compromise this argument by saying that both approaches are likely to have readiness problems.

A chief complaint has been that teachers neither possess the knowledge about books or enough time to use this approach. One critic insisted that individualized reading demands more than excellent teaching. "The teacher here," he said, "must equal the best of children's librarians." "Secondly, he must design thirty-five reading programs a year." Since it is obvious no teacher can meet these requirements, this critic was convinced that the individualized approach be rejected. Neither of these extreme statements is true, however. If teachers had college courses and in-service training in children's literature, had access to a descriptive catalogue of books such as I outlined above, and came into intimate contact with trade books regularly as they do with individualized reading, they would develop the necessary knowledge of books. It is not an impossible task. Secondly, the teacher does not "design reading programs" under this approach. Instead, he uses one reading program, allowing each child to proceed through it in an individual way.

Finally, some believe that ability-grouping provides for most of the various differences in rate of reading growth through the use of "flexible-grouping." My study of the changes made in reading groups in classes taught by superior teachers convinced me that "flexible-grouping" is largely wishful thinking, however. Certainly, I did not find the degree of flexibility the ability-grouping experts say is essential to their plan (3).

Considering all the above, individualized reading should develop into a reasonable alternative to ability-grouping after its inherent obstacles are overcome, and its unfair critics are quieted.

REFERENCES

1. Brogan, Peggy, and Fox, Lorene K. *Helping Children Read.* New York: Holt, Rinehart, Winston, Inc., 1961.
2. Draper, Marcella, Schwietert, Louise H., and Lazar, May. *A Practical Guide to Individualized Reading.* New York: Board of Education, 1960.
3. Groff, Patrick J., "A Survey of Basal Reading Grouping Practices," *Reading Teacher,* 15, pp. 232-235, January, 1962.
4. Groff, Patrick J. "Children's Opinions of Reading Textbooks versus Trade Books." Accepted for publication in *Reading Teacher.*
5. Groff, Patrick J., "Individualized Reading: Its Implication for Teacher Education," *Journal of Teacher Education,* 12, pp. 185-191, June, 1961.
6. Sperry, Florence. "What Research Says About Individualized Reading." *Claremont Reading Conference,* Twenty-fifth Yearbook, 1961, pp. 73-91.
7. Veatch, Jeannette (editor). *Individualizing Your Reading Program.* New York: G. P. Putnam's Sons, 1959.

307.

97.



Vol. 10, 65

368.

# 6. Specific Reading Disability: Teaching by Stimulation of Deficit Perceptual Areas

ROSA A. HAGIN, ARCHIE A. SILVER, and MARILYN F. HERSH
New York University

THE PURPOSE of this paper is to describe principles and techniques utilized in an investigation of stimulation of areas of perceptual deficit in the teaching of children with specific reading disability.[1] Previous studies from our clinic have offered a method for assessing perceptual and neurological assets and deficits of children with specific disability.[2] Follow-up studies have demonstrated the tenacity with which these perceptual deficits and reading retardation persist even ten to twelve years after what was considered effective remedial instruction. These studies demonstrated that, when adequate and inadequate readers in a sample of adults who were reading disabilities as children are compared, it is the adequate reader who shows the greatest degrees of perceptual maturation, while it is the inadequate reader who retains severe perceptual deficits.[3] The development of more effective teaching methods for the inadequate reader was clearly indicated. The method of stimulation of deficit perceptual areas is offered as one possibility for teaching these children. Based upon the hypothesis that increased accuracy of perception will be reflected in improved reading achievement, this study has devised methods for the stimulation of deficit perceptual areas and has subjected these methods to controlled investigation.

[1]This study was made possible, in part, by funds granted by the Carnegie Corporation of New York. The statements made and views expressed are solely the responsibility of the authors.

[2]Archie A. Silver and Rosa A. Hagin, "Specific Reading Disability: Delineation of the Syndrome and Relationship to Cerebral Dominance," *Comprehensive Psychiatry*, 1, (1960), pp. 126-134.

[3]Archie A. Silver and Rosa A. Hagin, "Specific Reading Disability: Follow-up Studies," *American Journal of Orthopsychiatry*, 34, (1964), pp. 95-102.

## Procedure

The general principles of this research are:

1. Total clinical assessment in neurological, psychiatric, psychological, and educational areas to provide data for a profile of perceptual assets and deficits.
2. Individual teaching based upon this perceptual profile with emphasis upon the training of areas of maximum perceptual deficit and in that training following a sequence of perceptual maturation from the most elementary to the most complex.
3. Provision for mastery of tasks at a simple level before proceeding to more difficult tasks by means of the "three-by-three rule" of three correct performances for three consecutive weeks.
4. Designing an experiment so that two experimental samples will follow a staggered schedule of training and "contact" appointments. Each subject will serve as his own control. The staggered training schedule is designed to minimize the effects of spontaneous maturation independent of treatment. The "contact" appointments are planned to minimize the influence of such non-experimental variables as individual attention and the "Hawthorne effect."
5. Defining techniques in a given modality to provide: (a) training at the *accuracy level* to improve a given modality; (b) training at the *intermodal level* to improve the matching of the input of one modality with that of other modalities; and (c) training at the *verbal level* to relate to perception of oral and written language.

Space permits the description of one technique, here. Form perception is the first technique at the accuracy level. The content consists of relatively simple forms such as the circle, square, rectangle, tri-

308.

angle, and diamond, then proceeds to asymmetric forms, matrix-like forms, and finally to complex forms. This sequence becomes increasingly difficult for the child with defects in visual perception. Accuracy is taught through a three-step process of (1) visual matching, (2) copying, and (3) recall. Each step in the sequence must be mastered at three correct performances during three consecutive weeks before the next step is taken. If there is difficulty at any stage, additional cues are offered, still, however, within the visual modality. For example, if the child has trouble with matching, he is given color cues. If he has trouble at the copying stage, point-to-point cues on incomplete forms are given with gradual reduction of cues as the child shows he is able to copy the form correctly.

### Specific Reading Disability Between The Ages 8-11 Years

The sample for this experiment consists of forty boys, all referred to the Bellevue Hospital Mental Hygiene Clinic because of behavior and school learning problems. The subjects were divided into two groups with each child paired in terms of age, IQ, psychiatric diagnosis and neurological status. The first group received six months of training in the perceptual stimulation techniques described above, each child having two 45-minute sessions per week. During the same six months period the second group received conventional teaching from a basal reading series in individual sessions of 45 minutes each with the same teacher as the first group. At the end of six months, the group which received perceptual stimulation went to conventional teaching procedures sessions, and the conventional teaching group began perceptual stimulation sessions. Reported here are the results for the first six months of the experiment.

### Results

At the six months cross-over point, both Group 1 (which had received perceptual stimulation techniques) and Group 2 (which had received instruction from basal readers) were retested with the perceptual and educational measures given at the beginning of the experiment. Each subject served as his own control in the comparisons of initial and retest scores. The significance of differences between pairs of scores was evaluated through the sign test,[4] a non-parametric method for use with related samples in two experimental conditions. In view of the preliminary nature of the study, the .05 level was used for rejecting the null hypothesis.

Significant differences between initial and retest performance of Group 1 were found on the following perceptual measures:

1. Bender-Gestalt Test: decrease in total error characteristics;
2. Marble Board Test: decrease in total error characteristics and increase in total score;
3. Tactile Figure Group Test: decrease in total error score;
4. Extension Test: decrease in number of subjects showing conflict between elevated extremity and preferred hand; and
5. Right-Left Discrimination Test: decrease in total error score.

No significant differences between initial and retest scores for Group 1 were seen on Wepman's Test of Auditory Discrimination, Goodenough Drawing, or the Finger Schema Test. No significant differences between initial and retest performance on any of the perceptual measures were seen for Group 2.

Changes in educational test scores were also evaluated through the sign test. These scores were dichotomized in terms of those pupils whose scores increased .5 of a grade during the six months training period and those whose scores did not. The selection of .5 of a grade as a minimal indication of change was based upon two assumptions: (1) slight increments in grade scores on educational tests reflect test-retest variations within the standard error of the measure rather than any real change in achievement level; (2) gains of .5 of a grade for six months of schoolwork might be expected to occur from standard school experiences without any special remedial help. On the basis of this dichotomy test-retest differences on the Jastak Wide Range Achievement Test

[4] S. Siegel. *Non-Parametric Statistics for the Behavior Sciences.* New York: McGraw-Hill, 1956, p. 68-75.



and on the Reading Section of the appropriate levels of the Metropolitan Achievement Tests were found to be significant for Group 1. Differences between initial and retest scores on the same measures for Group 2 did not reach the level of significance set for this study.

It is suggested that perceptual training stimulates neurological maturation to a level appropriate for reading. This implies a relationship between perception and language abilities. If we look for a common denominator in our methods of perceptual stimulation, we are impressed that problems in spatial and temporal orientation underlie them all, be they visual, auditory, tactual, or kinesthetic.

We believe these preliminary data lend support to our initial hypotheses: (1) that perception is modifiable by training, and (2) that improved perception is reflected in increased reading achievement.

[redacted]. 304.

98.

Vol.7, 62

## 18. Reading: The Language Experience Approach

72.

JAMES F. HALCOMB

The language experience approach to reading instruction is one of the many effective techniques being used to help children improve their reading skills. Teachers using this approach value the individuality of children's language expression. They put as much emphasis on the child improving his own language skill as they do on the child learning to use other people's language. The language program is viewed as a total program rather than one broken into arbitrary parts. Reading is recognized as only one language skill and it is not isolated from the other language skills: speaking, listening, and writing. This togetherness of skill development makes possible the continuing use of each child's own experience background as he grows toward maturity.

*In the kindergarten,* the teacher provides a wide variety of activities designed to extend the experience background of her group. Each day some children are encouraged to share their thoughts by expressing them with paint. Usually there are three or four children who have thought enough about the ideas they have expressed to tell stories of interest to the class. The teacher often records individual stories in the children's own language. These creative efforts of children are given a place of honor in the classroom. Since they have shared in the production children are proud of their efforts. The teacher strengthens the link between oral language and reading. Through personal experiences children learn that, "Reading is just talk written down."



At the kindergarten level the only person who is expected to read print is the teacher. Each day the teacher reads aloud something the children have produced, as well as something produced for children. Through this process children develop a kinship with adult authors.

Study trips, films, interest centers and group discussions, all contribute to the vital objective of enriching the experience background of children. The teacher accepts a deep responsibility for helping each child extend his vocabulary through describing his personal experiences. As the group's background is enriched the teacher encourages every child to experience authorship many times. In addition, each child is provided wide contact with many other kindergarten authors, as well as adult authors.

*In the first grade,* when a story is dictated, the teacher expects the child to make discriminating responses with regard to subject matter, choice of vocabulary, sentence structure, and the symbols of the language. As early as possible, the child is helped to develop skill in recalling that which he has dictated. He is then ready to develop a sight vocabulary based on the real language of the children in his room.

As the teacher takes dictation from a child she talks about such things as letter formation, the conventional symbols which represent the oral sounds which the child makes. She helps children discover words which are alike, words which begin alike, and words which end alike. She is preparing children for independent writing at the same time she is helping them recognize the common words in our language.

While the teacher is working with a small group, or an individual child, other children are involved in a variety of planned activities which provide for extending experiences. These include activities such as manipulating materials at the science table, creating pictures with paints, modeling with clay, building with blocks, etc. Many children read books which have been developed in their classrooms, others read books from the school library, or those which they have brought from home. The classroom becomes a learning laboratory developed by both pupils and teacher.

The breakthrough for an individual child occurs when he wants to write his own story. The teacher is sensitive to this time for each individual child. She encourages, gives recognition to, and offers needed help for launching the child in his first independent writing effort. The initial child's breakthrough is sufficient motivation for many children to do their own independent writing. As this occurs the teacher and children develop many resources and procedures for writing and reading the materials which have been produced. These materials include: high frequency word lists, word lists of common interest, word lists on one topic, picture dictionaries, children's written material, and library books in the classroom. Further help is received from the classroom environment through interest centers and bulletin boards.

At this point the teacher takes advantage of self-motivation inherent in individual writing to assure mastery of the words most frequently used in all reading and writing. Some techniques she uses include the incomplete sentence which the child finishes in his own unique way based on his own experience. This makes clear why there can be no one correct answer. In fact, the teacher encourages diversity on the part of the children. A collection of children's writing, such as the unfinished stories bound into a book, gives the teacher a useful classroom tool for developing a basic sight vocabulary as high frequency words appear on each page. Resource materials for social studies are developed as children compile class books containing interesting and necessary information on topics they are studying. Every child is encouraged to contribute in his own unique way.

As children write they discover there are many things about writing which they do not understand. Because they are not threatened by failure to understand the common elements of refinement, they are willing to discuss these refinements in group seminars led by their teacher. The seminars deal with topics such as capitalization, end of sentence punctuation, use of quotation marks, spelling and phonics. This is the teachable moment for dealing

[redacted].

305.

with writing skills rather than interrupting the reading thought to teach these skills.

Small groups of children who have carefully thought through their stories come together with other children and their teacher. Here they receive any needed help from their teacher and the other children. Their teacher lists needed words on the chalkboard. At the conclusion children are led to reach valid generalizations regarding the listed words, quality of ideas, form, and format.

Children who have apparent difficulty comprehending reading material other than that which they have produced are scheduled to work with the teacher on an individual or small group basis. Their teacher selects published material that is designed to develop the skills which the children have not been able to understand and use. Their teacher seldom uses all of the material in a published book for direct teaching. Stories are selected because they provide material to teach a specific skill.

While some children need a great deal of direct teaching, other children reach independence early and spend most of their reading time with materials selected at a library table.

*Children in the third grade* continue to develop their ability to read and interact with the content of a wide variety of books which are in their environment. Books provide stimulus for children's writing, as well as models of excellence in written expression.

The teacher's role is one of raising the level of awareness on the part of children that there is more ahead of them. Participation in seminars which deal with areas such as style, form, enriched vocabulary, depth of meaning, and word attack skills, help children derive appreciation for the skills which other authors use as they write. At the same time children develop functional skills which serve them as authors.

What does a language experience approach mean for children? By the time boys and girls are in sixth grade they identify with good authorship to the point of being able to use excellence of style and form in their own writing. Not only can children read with independence and comprehension, but they also choose to read as a leisure time activity, as a means for finding answers to questions, and as a means of extending information in areas of high individual interest. Not only can children write with correct form and spelling, and read with independence and comprehension, but they feel also a responsibility as young citizens in a democratic society to share their own unique forms of expression through speaking, writing and the publishing of what they write.

Children perceive themselves as students who can handle basic language skills for their immediate purposes, but, they have also developed the concept that the best is in the future. The best books are yet to be written. The best plays are yet to be acted. The best speeches are yet to be orated. The greatest music is yet to be composed. The greatest pictures are yet to be painted. The greatest explorations for the benefit of mankind are in the future.

Children who, from the kindergarten year, have had an equal emphasis on the production of language, as they have had on the instruction in the use of other people's language, are the children who are prepared to contribute effectively to a future society.

99.

The Individualized Reading Program: a guide for Classroom Teachers: IRA Conferenc e Proceedings, 1966; Vol. 11, Part 3/Lyman C. Hunt (Ed.),

LORRAINE HARVILLA

KUTZTOWN STATE COLLEGE

# 2. Initiating the Individualized Reading Program: Various Transitional Plans

CHANGE BEGINS with the process of thinking about how change can take place. The desire for change has emerged through dissatisfaction with procedures inadequate for meeting the needs of all pupils. Change is inevitable when inadequacies exist at both ends of the classroom continuum, from the least able to the most able. The thinking about change has begun when teachers ask themselves these questions: "How can I improve my instruction to meet more adequately the needs of each member in my classroom?" and, "Am I instructing my children to the best of my ability?" Teacher, supervisor, and principal, each has initiated change through the mental process of noting what is a plausible and feasible situation for change.

Individualization has catapulted into classroom instruction. Procedures and practices are changing. Teachers are helping one another by sharing the results of experimentation found to be successful in their classrooms. Research is indicating practical improvement in individualization of instruction. Practical steps into individualization of instruction in reading have been explained to parents. Children have learned ways of working independently; and transitions through discussion and planning among children, teachers, parents, principals, and supervisors have produced change.

## First Steps

Classrooms in which the Individualized Reading Program (IRP) is in action must reflect the wide, wide world of children's books. Gathering materials is a primary step in the transition to an individualized program of reading instruction. Reading materials of varying interests and difficulties reflecting those of the children in each particular classroom should be made easily available to the members of the class. Classroom management and practices of an individualized reading program must be



[redacted].

307.

sufficiently discussed. For some children, simply being provided ample opportunity to explore a variety of reading materials and being permitted to move as rapidly or as slowly as necessary are the only steps needed in transition.

Valuable sources of books for the classroom have included Books on Exhibit of Mount Kisco, New York; The Combined Book Exhibit of 950 University Avenue, New York; mimeographed materials from Dr. Lyman Hunt, The University of Vermont, Burlington, Vermont; the school's central library, city libraries, Garrard Press of Champaign, Illinois; Scholastic Paperbacks, Englewood, New Jersey; *Elementary English,* a publication of the National Council of Teachers of English; and Young Scott Books, 8 West 13th Street, New York, to mention but a few of the unlimited sources. Personal books the children bring to share with their classmates are probably the most valuable of all. The teacher may have books from her own childhood reading. These, too, are of value to children in the classroom. *A Teacher's Guide to Children's Books* by Nancy Larrick published by Charles E. Merrill Books, Inc., of Columbus, Ohio, and *The Proof of the Pudding* by Phyllis Fenner, published by the John Day Company of New York, should not be overlooked. Random House, Inc., of New York has, through the Dr. Seuss books, made numerous teachers aware of the appeal of the tradebook for children. This publisher has been especially valuable to teachers.

## New Practices in Action

For a great many teachers and children the transition from one program of instruction to another is a step-by-step process. Introducing the entire class to a different way of working, experimenting with a reading group (any reading group), and helping a single child achieve in a more self-satisfying manner are also fine for the transition.

On the other hand, a transition through programs may be realized through a scheduling technique: one day a week, two-day or three-day schedules, half-year experimentation. Well-thought-through plans for work must accompany whatever ideas are satisfying to teacher, pupil, and administration.

## From a Basal-Series Textbook Program to an Individualized Reading Program

Basal textbooks contain interesting stories that appeal to many children. Freeing the bonds by permitting a comfortable reading pace to be kept by

[redacted]
308

each child as he sees fit, makes them even more enjoyable. Some teachers extend that privilege to a single group of children; some, to all groups of children at a given time. Completing a unit of stories at differing rates of speed requires supplementary books in a similar-interest area to be read by the individual child when the unit is completed. Teachers who have made a change this way develop other practices of the IRP with the children, including conferences and creative endeavors or, as one teacher stated it, "doing something with your reading," as each (teacher and pupil) learns independence through experimentation.

## Complete Transition with the Entire Class

When a teacher commits herself to complete transition from one program of instruction to another, children should understand the manner in which the reading program is to be sustained. Planning among the entire membership of the class includes the development of charts indicating the acceptable activities for the reading period. Some successful teachers find the following activities workable:

1] Choosing a book,
2] Reading quietly,
3] Writing about a book,
4] Having a conference, or
5] Reacting to what you read by
   a) Painting a picture,
   b) Making a puppet,
   c) Writing a poem, or
   d) Planning a dramatization.

(The children have numerous additional ideas of a quiet nature in reacting to what they read.)

6] Engaging in a word-learning activity (this one usually is a quiet word game involving several children), or
7] Marking the record. Recording information about a book, interesting comments, number of pages read, reaction to a character, or a situation in the book on a three-by-five dated card is sufficient record for some teachers. Others desire a notebook kept by each child as well as a teacher record book. Additional teachers find personal record folders kept by themselves to be sufficient. However, it is common practice for both teacher and pupil to keep in some permanent form a record of books read and instruction needed as

[redacted]
309.

a guide for learning. The type of record keeping should be a functional one for the teacher. It should include the name of the child, the title of the book read, and the author's name. Children find it rewarding to write to authors. If the address is unknown, the publisher will forward the letter to the author. Receiving a letter from the author of a book read has been a thrilling experience for many children.

The teacher, too, needs to plan definite activities in which she engages during the reading period. Some teachers find the following daily program most acceptable:

1] Provide a few minutes to look over the entire classroom. During this time the teacher makes a mental check of the activities at which children are working. She takes a comprehensive overview to see that each child has made a worthwhile choice for a learning situation.
2] Have individual conferences. Some children are taught needed reading skills during this time.
3] Have group conferences about books read or being read.
4] Teach skills groups. These groups are made up of children who have needs in similar skills at the same time.
5] Provide opportunity for sharing what has been read.

## One Group at a Time

Teachers desiring a slower step-by-step entrance into an IRP have followed a pattern similar to that of a complete classroom transition but have limited the change to a group-by-group process. Teachers work through the individualization processes with one group until security has been achieved and add an additional group to the practices of the program intermittently as the school year progresses. One teacher began with a single child, added a group to the program, and before the year was completed had made the transition with the entire classroom.

Teachers who make this step-by-step change sometimes conduct individualized reading one day a week for a period of time. The inclusion of a second day occurs within a short period of time. A third day may be included when teacher and children find it desirable. Some teachers continue the three-day, two-day program throughout the school year.

In his booklet published by Wm. C. Brown Book Company of Dubuque, Iowa, Richard Wilson charts a schedule of change in the

following manner: The first week the high group has individualized reading Thursday and Friday while the average and low groups have group reading. The second week the high group has individualized reading Wednesday, Thursday, and Friday; the average group has individualized reading Thursday and Friday while the low group continues group reading. During the third week the high group has individualized reading Tuesday, Wednesday, Thursday, and Friday; the average group, Wednesday, Thursday and Friday; the low group Thursday and Friday. During the fourth week the high group has individualized reading the entire week; the average group, Tuesday through Friday; and the low group Wednesday through Friday. In the fifth week both high and average groups continue individualized reading all week while the low group has individualized reading Tuesday through Friday. In the sixth week complete transition has taken place. This plan of gradual change appears to be appropriate and acceptable for many teachers.

## From Programmed Self-Selection to Complete Self-Selection

In the classroom where children are already accustomed to some independence in reading, the elimination of the programmed materials and the introduction of a variety of children's books might be the first step in transition to practices of the IRP in its entirety. The enjoyment of independence in reading is already established. Obtaining needed assistance from classmates and teacher requires an understanding of the means by which help may be obtained. May I ask help of my neighbor and how frequently? At what times is it permissible to go to the teacher? How much mobility is acceptable in the classroom? Such questions each teacher must answer for herself.

## Helpful References

Numerous articles concerned with the IRP have appeared recently in educational periodicals. Chapters in textbooks on reading instruction have appeared in many of the later texts. To mention all would be burdensome and less valuable to the reader. Those included below have proved to be most helpful as guides and directives to teachers instituting this reading program.

Brogan, Peggy and Fox, Lorene K., *Helping Children Read.* New York: Holt, Rinehart and Winston, Inc., 1961. This book spells out step by step the ways some teachers began managing reading instruction

[redacted].

311.

in a "different" way.

Darrow, Helen Fisher and Howes, Virginia, *Approaches to Individualized Reading*. New York: Appleton-Centure-Crofts, 1960. Educators find this booklet contains many practical suggestions for teachers and children.

Films. *From the Bookshelf*. Audio Visual Aids Library, The Pennsylvania State University Library, University Park, Pennsylvania. These twenty kinescopes about individualized reading instruction are the result of the project "Evaluating the Effectiveness of a Televised Programmed Series on Reading Instruction," directed by Lyman C. Hunt, Jr.

Harvilla, Lorraine, Duplicated Materials. Kutztown, Pennsylvania: Kutztown State College. These papers were developed by students studying the IRP and in-service teachers involved in classroom changes in reading instruction.

Hunt, Lyman C., Mimeographed Materials. University of Vermont, Burlington. These papers were written by teachers who have introduced and taught reading following the precepts of the IRP. They include also papers on the philosophy and concept of the program. This material has proved its worth to teachers making the transition. They are highly recommended by this writer.

Veatch, Jeannette, *How to Teach Reading with Children's Books*. New York: Bureau of Publications, Teachers College, Columbia University, 1964. This practical guide is written in pictorial form. Many teachers and students find it very helpful.

Veatch, Jeannette, *Individualizing Your Reading Program*. New York: G. P. Putnam's Sons, 1959. The philosophy and practice of the IRP are explained for teachers in easy-to-read text. This material also includes discussions on classroom practices as teachers experienced the change of program. Recommended also is Dr. Veatch's recent publication, *Reading in the Elementary School*. New York: The Ronald Press Company, 1966.

Wilson, Richard C., *Individualized Reading, A Practical Approach*. Iowa: Wm. C. Brown Book Company, 1965. Many helpful charts for making the transition and keeping records are included in this booklet. It is one of the most valuable booklets available to teachers. It spells out in specific terms the what, why, and how of the IRP.

372.

100.



Vol.7, 62

# 7. Theoretical Design for Teaching Reading

ARTHUR HEILMAN

The topic *Theoretical Design for Teaching Reading* could be approached in different ways. It is obvious that the selection of this topic could not have implied that a startling new or radically different theory on teaching reading was expected. This becomes clear as we consider the factors with which such a theory must deal. Theory for teaching such a complicated process as reading, of necessity must evolve slowly. As it does evolve each and every facet must be tested empirically in the classroom, otherwise we will find ourselves dealing not with a theoretical design but with a hypothetical conjecture. There is nothing inherently wrong in advancing hypotheses, but it would be unjustifiable to advance these as blueprints for instruction.

In the brief space allotted we might possibly deal with two concepts. First, we should attempt to develop an understanding of what is involved in a theoretical design for teaching reading. Second, we should explore the hypothesis that as teachers we are not thoroughly conversant with the theoretical design upon which our present reading instruction is based. If teachers are not aware of the theory which underlies present practice this fact may explain why we have not been effective in rebutting critics and informing interested laymen as to what we are doing and why we do it.

In the field of reading there seems to be some confusion as to what constitutes a method of teaching reading. For instance there are a number of administrative procedures and instructional techniques, each of which may have considerable merit, but which are sometimes confused as methods of teaching reading. "The ungraded primary," various "levels plans," "the Joplin plan," "team teaching," "platoon vs. self-contained classroom," and "in-class grouping," are, in the final analysis, administrative procedures. Each of these provides a particular kind of environment in which learning is to take place and are part of the framework in which the total theoretical design is to be applied. The "experience approach," "phonetic methods," "teaching machines," "the New Castle approach" (use of special visual materials), and "individualized reading" are excellent techniques but in themselves do not merit the designation *method* of teaching reading.

We come now to the question, "What does a theoretical design for the teaching of reading have to deal with—what must it embrace?" Such a theory would have to deal with a number of major factors certainly including the following:

1. The learner.
2. The nature of what is being learned.
3. The ends, goals or *applications* for which the learning takes place.
4. Methodology and materials. (These designed in relation to the previous three factors.)
5. A theoretical design for teaching reading must deal with every reading skill needed at every level of instruction.

It is apparent that these factors merit more discussion than we can give them here. In considering the *learner,* it might be pointed out that it is becoming more and more difficult for the school to convey

318.

to the general public that variability among learners is a primary factor in producing variability or "individual differences" in learning to read. There has been a concerted effort on the part of some very articulate self-appointed critics of American education to throw this concept out completely. They say it smacks of John Dewey and the *whole child*. In recent attacks on the reading readiness concept, data are cited that some five-year-olds are capable of learning beginning reading skills. Although teachers have known this fact for years it is now heralded as a new discovery. In the hands of some critics this isolated fact serves as the basis for the facile generalization that all children should be taught reading at an earlier age.

Our present-day concern for the factors of the *nature of reading* and the *goals* in teaching reading are frequently misunderstood. Learning to read is learning a complicated symbolic process and as such is very sensitive to various pressures. Teachers know that undue pressure on children may result in confusion, frustration and non-learning. Numerous goals or purposes for reading could be listed. However, from the standpoint of our theoretical design, the goal of instruction is to treat learning to read as an on going process. Reading is a developmental process as are all other growth processes.

In the final analysis a child does not learn to read in grade one. If he is fortunate he masters certain reading skills. He can be conditioned in grade one to see reading as a meaning-getting process or a series of analytical exercises in pronouncing individual words. If, in grade one he becomes proficient in this latter endeavor, he will make relatively high scores on reading tests because at this level reading tests cannot very well measure the essence of the total reading process. In later years of development it may be brought home to this child, to his parents, and to his teachers that there is a great and important difference between analyzing words in a passage and analyzing a passage, a paragraph or a chapter. Reading is much more than the sum of its parts. This brings us to the fourth important factor in a theoretical design—methodology and instructional materials.

In the past few years it has become popular among critics of present-day reading instruction to focus attention and discussion on methodology alone. They have seized upon phonics, as it relates to reading, and have planted in the public mind the erroneous idea that the present debate is between the advocacy of a *method* which is phonetic versus a method which does not believe in or teach phonic analysis in learning to read. The truth is that there is no method used in America and no materials available for the teaching of reading which does not advocate teaching every phonic analysis skill needed for becoming an independent reader.

This points up the issue of why every teacher of reading should be both conversant with, and facile in explaining to laymen the theoretical design followed in teaching reading. We have made the task of the critics a very easy one because we tend to grant them the premises from which they wish to start. They do not always reciprocate by starting from factual premises. As teachers, we should have ready answers as to how the theory of teaching reading relates to dozens of classroom practices; that terms such as *sight-word-method, whole-word-method,* or *look-and-say method* do not describe present-day method in the area of teaching reading.

We should be able to explain:

1) Why words are taught as whole units before children are asked to deal with letter components.
2) Why consonant sounds are taught before vowels.
3) Why memorizing phonic rules is often less valuable than having children deduce generalizations from words they already know.
4) Why too much emphasis on phonics in beginning reading interferes with seeing reading as a meaning-getting process.
5) That the "controlled vocabulary" of basal series is not any more insipid than the vocabulary taught in any "phonetic method."
6) That readiness instruction is not an educational waste, and that there are sound, logical objectives in a readiness program.

245.

It is not advocated that teachers become rigid in defending *what* we are doing, but rather that we should become more articulate in explaining *why* we do what we do.

In addition to having answers, teachers should be prepared to ask questions of self-appointed critics who write and speak with eloquence and conviction, but whose information is often based on adult introspection rather than knowledge of children or available data. Some questions that might be asked are: (1) What per cent of children failed to learn adequately under the old synthetic-analytic phonic approaches? (2) If two or three per cent of children of 5 years can learn to read should the other 97% be subjected to intensive reading instruction also? (3) What phonic principles needed to make children independent readers are omitted or not provided for in present-day theory and present-day materials? (4) How many children, just embarking on the process of learning to read, find that the controlled vocabulary makes beginning reading materials dull? (No data should be included from adult critics.) (5) Starting from the premise that phonic analysis is needed—can it be overemphasized in beginning reading? (6) Is there any relationship between the answer to the above question and the child who is still "analyzing words" after he has met and analyzed them 50, 100, or 200 times? (7) Is there something inherently bad about instantly recognizing words in reading? If not, is there something inherently bad in teaching children to do this?

In conclusion, it should be pointed out that this brief treatment of the problem of the relationship between theory and classroom practice is not an attempt to catalogue all facets of this relationship. Nor was there an intent to list all issues upon which critics have been either vague or misinformed. Rather, the aim was to cite examples which might illustrate the need for teacher's understanding the relationship between theory and practice and why such understanding would militate against our yielding psychologically sound principles and practices in the face of pressure. These principles and practices should not be thought of only as being defensible but rather that they are essential in teaching reading to all children.

Vol.9, 64

101.

37.

## 2. Team Teaching at the Elementary School Level

HARRY C. HENDRICKSON

AMONG the innovations spreading across the educational scene is the concept of team teaching as one of the answers to the improving of instruction and learning. Specialists in the field have developed several definitions of the term. John I. Goodlad[1] sees it in this fashion: "Team teaching basically is an arrangement that provides for having two or more teachers, with abilities and skills that complement each other, assume joint responsibility for directing the learning activities of a group of students."

Because team teaching has been in practice for so short a time in so few communities, conclusive evidence of its effectiveness has not yet been accumulated, and several forms or variations of teams are in existence.

According to an NEA survey,[2] team teaching is definitely on the increase as one of the leading trends in elementary education. In 1956 only five per cent of elementary school principals reported some use of team teaching; in 1961 this figure had climbed to fifteen per cent. Nearly one-third of the elementary school principals expect to have some degree of team teaching by 1966.

### Baltimore City—1963-64 Survey

The Bureau of Research has made a survey of persons who have participated in team teaching in the Baltimore City Public Schools. Approximately one-third of the respondents replied that formal evaluation had been made of pupils' progress, the majority of these reporting comparisons with the pupils' former performance, and several having compared the progress of pupils taught by the teams with that of pupils simultaneously taught in groups not under team teaching.

A larger percentage of teachers reported having conducted an informal evaluation of pupils' progress, and the results of the informal evaluations were also favorable to the team plan of instruction.

Chief among the cited disadvantages of team teaching were the increase in work load, amount of time demanded for meetings, additional record keeping required, and encroachment upon out-of-school time. Some of the criticisms had to do with the hampering of an individual teacher's creative abilities.

However, respondents were much more eloquent on the subject of the advantages than they were on the disadvantages to teachers in the team teaching organization. Chief among these advantages were the benefits derived from cooperative planning, sharing of methods and materials, general exchange of ideas, and cooperation in evaluation. Next in order was the opportunity for professional growth.

Nearly all the respondents indicated that reading and language arts were major areas of team instruction. Some interesting comments were made relating specifically to the teaching of reading. One person reported that formal evaluation of instruction showed that team teaching of reading was decidedly superior to traditional instruction, while for social living it was superior to some extent.

Several administrators reported favorable reactions to team teaching both as an aid to pupil instruction and as a device for the strengthening of inexperienced teachers. Others stated that the group planning made possible through the team organization enabled teachers to supply better enriching and remedial experiences in reading. New teachers, in particular, learned how to identify skills needed by various children, how to introduce a new story or book, how to give a word recognition test, interpret results, and group children more effectively. It was felt that the team organization gives support to the experienced teacher and results in better planning, sequence, and continuity for the learning program.

### Summary

National trends indicate a continued interest in team teaching. Studies, both formal and informal, are generally favorable to team instruction as a means of providing more individual instruction of high calibre, of utilizing combined strengths and special aptitudes of several teachers, and of assisting inexperienced teachers to develop good instructional techniques more rapidly than under the individual classroom procedure. Some disadvantages have been noted regarding the necessity of rigid scheduling, difficulty of knowing a large group of children well, and the fact that team membership requires suitable personality traits and may hamper individual initiative and creativity. Definitive studies are not yet available, and more experimentation and evaluation are necessary before final judgments can be made.

[1]John I. Goodlad. "Toward Improved School Organization," *The National Elementary School Principal*. Yearbook XLI, December 1961, p. 115.

[2]National Education Association, *The Principals Look At the Schools*. A Working Paper Prepared for the Project on the Instructional Program of the Public Schools, April 1962, pp. 17, 40.



315.

[redacted].

102.



# SEQUENCE VII
# INDIVIDUALIZING READING INSTRUCTION

## A. PRIMARY LEVEL

### 1. Philosophy of Individualized Reading

L. C. HUNT, JR.
University of Akron

THE PARAMOUNT issue is whether our current emphasis on intensive reading instruction can be brought into balance to some extent through a program of extensive reading. A basic characteristic of the basal text program is that each lesson is developed in a highly structured, comprehensive fashion—an approach best described as intensive reading instruction. Every selection is read and reread in great detail—word by word, line by line, page by page, story by story, and book by book—in a seemingly endless study. There is a great need to balance this intensity of study with a program which builds reading instruction in a broader, more natural fashion.

Certainly a child's mind needs to brush up against a multitude of ideas; he needs periods of continuous uninterrupted silent reading in order to pursue ideas in larger gulps, in more continuous development. Providing children with opportunities to read widely in the extensive world of literature available for them can best be accomplished through the program most frequently termed Individualized Reading.

What precisely is the individualized reading program and how does it differ from the typical basal textbook program?

Individualized reading is a program organized to give particular attention to the needs and interest of each individual student. Certain aspects of the program may vary considerably among teachers however. Some basic principles of individualized reading are common to nearly all class room situations where it is used. Typical common elements are:

1. Literature books for children predominate (rather than textbooks series) as basic instructional materials
2. Each child makes personal choices with regard to his reading material
3. Each child reads at his own rate and sets his own pace of accomplishment
4. Each child confers with his teacher about what he has read and his progress in reading
5. Each child carries his reading into some form of summarizing activity
6. Some kind of record is kept by teacher or child or both
7. Children work in groups for an immediate purpose and leave the group when that purpose is accomplished
8. Word recognition and related skills are taught and vocabulary is accumulated in a natural way at the point of the child's need

#### Philosophy

This program is markedly different from the textbook program wherein children are assigned to groups according to reading levels. Once grouped, directed reading instruction is presented to all children simultaneously according to a highly defined procedure within the manual. Each child, bound by the pace of this group, must accomplish material according to the teacher's directions. In individualized reading opposite conditions prevail; children spend blocks of time reading extensively. The individualized reading program is based on a premise that a child's pattern of learning cannot be predetermined in either rate or manner and can best be guided within a highly flexible framework allowing for considerable pupil choice and teacher judgment.

With all the materials of wonder, beauty, and breadth of knowledge available to children in the great variety of literature written for them, it is vital that they be given the opportunity, under guidance, to bring their world and the world of books together. They should have time



[redacted].

316.

to explore the books that abound and to select those that touch their "growing edges" in terms of what they want to investigate and learn and enjoy.

By contrast most of our reading textbooks are anthologies of short stories or are collections of excerpts from well known original stories and books, a common and defensible practice. But it does seem advisable to give children opportunities to come to grips with total presentations as they appear in original works rather than always to select a part or the best part of the total selection.

## Organization

If each child is permitted to choose his own reading material according to his own interests, development, and proficiency reading, he must assume certain responsibilities as a member of the class. Each freedom is balanced by a corresponding responsibility to himself—and to others. He cannot behave so as to interfere with the responsible behavior of his classmates.

Each child must sense how he fits into this kind of program. In addition to sustained silent reading, he may be recording his reading, discussing his reading with teacher or classmates, writing creatively about his reading, choosing his next book, and so on.

## Procedures

1. *Book Selection:* Varying degrees of guidance are needed in helping children select books. Some children need almost no assistance, others initially need a great deal of teacher direction in choosing books which are appropriate in level of difficulty, value of content, and even in interest-appeal.
2. *Reading:* Children usually read independently in the materials they have chosen. The teacher directs or controls the reading of those not sufficiently independent to pace themselves. Usually the child sets his own purposes and reads silently at his own rate. It is necessary, however, for each child to show through a variety of activities that his reading is being done in a responsible manner.
3. *Recognition vocabulary:* The accumulation of a recognition vocabulary in the textbook program is built on the concept of a controlled vocabulary. Vocabulary control consists of presenting a limited number of carefully selected words which the child is to learn at the time they are introduced. Success or failure is dependent upon whether these preselected words are learned at the time they are presented. In the individual reading, a child meets words naturally within the context of the story he has chosen to read. He learns them usually because he needs them to get the important ideas in his reading.

   A teacher who departs from the method of presenting preselected words must be able to discern whether or not a child is accumulating a recognition vocabulary at a reasonable rate and utilizing word study skills effectively. If a child is accumulating a vocabulary at a rapid rate, he can be encouraged to learn many words through wide reading. If a child is stagnated, then careful and organized teaching must take place.
4. *Conference:* The teacher-child conference is central to the individualized program. In the conference the teacher uses all of her talents and knowledge to intensify children's involvement with words and ideas. During this time teacher and child may discuss appealing aspects of the books, ideas presented by the author, and implication of these ideas as guides for living. The teacher determines whether the child knows what is happening and is able to select the important ideas in the book. The child is often requested to read aloud a particular passage of interest or importance. Frequently preparation is made for sharing the book with the class. The teacher may make a note about the need for particular kinds of help or may provide some on-the-spot instruction. The success of the conference depends on the art of questioning developed by the teacher.
5. *Related activities and sharing:* Hearing about books read by others can foster in children a desire to do something on their own with the new ideas, new learnings, and knowledge contained in books being read. Stimulation to reading widely is gained as children learn from others about new books through creative work, panel discussion, dramatizations, etc.
6. *Record-keeping:* Teachers who use individualized reading instruction have found it necessary to devise ways of keeping records of the children's development in reading. Such records serve as a guide for planning and as a basis for reporting to parents on pupil progress.
7. *Skills groupings:* When several children are identified by the teacher as needing help in the same area, they are grouped together temporarily for this specific instruction.
8. *Interest groupings:* Children often like to work together. Frequently, several children decide to read the same book independently and then meet to discuss the important ideas, what the book has meant to them.
9. *Evaluation:* In every instance where individuals are asked to take responsibility for their actions, their own evaluation of accomplishment is of utmost importance. Where children are expected to be developing independence, the need for continuous evaluation cannot be overstressed. The teacher must develop with her children criteria for determining whether or not they are improving in their abilities to select books, read independently, use time wisely, and to respond to meanings and implications from what has been read.



The individualized reading program then differs sharply from the basal textbook program; differs in philosophy, in classroom organization, in utilization of printed materials, and, above all, differs in procedures employed by the teacher. Basically, the difference lies between reading instruction conceived as an intensive activity as contrasted to instruction based on broader extensive reading by children.

### REFERENCES

Hunt, L. C. "Can Teachers Learn About Individualized Reading Instruction Through Educational Television?" *Changing Concepts of Reading Instruction,* J. Allen Figurel, Editor, International Reading Association Conference Proceedings. Vol. 6, 1961, pp. 145-147.

Lazar, M.; Draper, M.; Schwietert, L. *A Practical Guide to Individualized Reading.* Bureau of Educational Research, Publication No. 40, October 1960. New York: Board of Education of the City of New York, 110 Livingston St., Brooklyn, N. Y.

Veatch, Jeannette. *How To Teach Reading With Children's Books.* 1964. Bureau of Publications, Teachers College, Columbia University, New York, New York.

317.

103.

Vol. 9, 64

# SEQUENCE IV INDIVIDUALIZED INSTRUCTION IN THE CLASSROOM

## A. ELEMENTARY SCHOOL

### 1. Should the Professor Return to the Classroom? or I Taught Individualized Reading in Third Grade

LYMAN C. HUNT

I HAD WANTED to return to the elementary classroom for a long time. Following years of working closely with several creative teachers[1] who had pioneered in the development of individualized reading programs, I decided to try to teach it myself. Accordingly, after ten years, I left the serenity of the college scene for the turbulent turmoil of thirty-two third grade youngsters.

#### Quiet Reading Time

When I arrived on the scene, most youngsters were acquainted with the well-stocked library as well as with the procedure for selecting a book to be read individually. From this base a highly individualized reading program was developed.

The central feature of the program was called "Quiet Reading Time"—a silent reading period varying in length of time from forty to sixty minutes. Each child with a book of his own choice, proceeding at his own pace, read quietly at his seat. It was during this time that conferences were held with individual children. The individual conference with the teacher was essential for it enabled the child to show the teacher the extent to which he had read in a responsible fashion. The success of the conference depends on the kinds of questions asked by the teacher. Perceptive, penetrating questions can give insight relatively quickly into the depth of a child's reading. Questions may be grouped into three major categories; some typical examples of specific questions are given for each category.

I. Appropriateness of the Book: These questions are designed to determine the appropriateness of the choice of a particular book by a particular child.

A. Why did you choose this book? Was this a good book for you to read?
B. Was this book hard or was it easy? What made it hard (easy)?
C. Could you tell what was happening all the time?
D. Were there places where you got mixed up? Or, were there places where you didn't understand? If so, how did you straighten yourself out?
E. Should you choose the same kind or a different kind of book next?

Answers to such questions give real clues to how wise a choice the child has made. It is the function of the teacher through guidance to aid each child to make the best possible choice. But the choice belongs to the child; it should be his unless it is clear that he cannot handle this degree of freedom.

II. Appreciativeness of Book: These questions are so structured that the degree of appreciation for the book is revealed. An effort is made to have the reader place the book on a continuum of best liked to least liked of the several books which have been read.

A. Was this a good book? If "Yes," how good?
B. Was this not a good book? If "No," how poor?
C. How close to the top (bottom) would you put it?
D. Was this the best (worst) book you have read?
E. How much do you usually like books of this type?
F. Do you like other books by this same writer?
G. Do you want to share your book?

A reader must learn to make judgments about his choices. All books and stories are not equally good. All books and stories are not equally appreciated by all readers. Only by verbalizing his reactions can the reader determine the kinds of books and the particular books which are highly satisfactory to him. Literary taste can emerge only upon reflection about what is not good.

III. Values gained from Book: Questions of this sort are designed specifically to determine the extent to which the reader has responded to the ideas in the book. All questions lead the reader into making judgments about the worthwhileness of the ideas. This is reading comprehension in its best sense.

A. Did this book tell or teach you something important that you did not know? What new ideas did you learn from reading this book?
B. Which part of the book was most important?
C. What do you think the person who wrote this book was trying to say to you?
D. Tell me a few highpoints of the book.
E. Did something happen in the book that you would like (not like) to have happen to you?
F. How true (imaginary) is this book?

These questions cause the reader to make a judgment through selecting a part or parts. It becomes relatively easy for the teacher to tell whether the judgments made by the child are substantial or superficial. It is not necessary for the teacher to be intimately acquainted with all books read by children to discern the quality of the child's responses.

[1]Sophia Dilling, Phyllis Parkin, Helen Metzler, Margaret Lay, Lorraine Harvilla.



93.

[redacted].

318.

104.

The Individualized Reading Program: a guide for classroom Teachers: IRA Conference Proceedings, 1966; Vol.11, Part 3/ Lyman C. Hunt, Jr. (Ed.),

LYMAN C. HUNT, JR.

UNIVERSITY OF VERMONT

# 1. The Individualized Reading Program: A Perspective

READING an abundance of good children's books is the essential feature of the Individualized Reading Program (IRP). This program more than any other gives children an opportunity to read extensively and independently from a wide array of books, all sorts of books, which have been published specifically to enlighten them about the world in which they live. An important outcome of this program is to extend and enrich reading rather than to limit and restrict it; this latter condition frequently results from the intensive analytical reading, which is so characteristic of current reading instruction. Children need opportunities in school to read widely.

The IRP, however, is more than wide reading. It is an intricate, highly-organized program of reading instruction within the classroom. As such it treats the reading process as an interaction of three component factors:

1] Skills development—
   From simple word-recognition skills through applications of skills to complex contextual material;

2] Response to ideas—
   From specific recall to deeper understandings and sensitive interpretations;

3] Attitudes and values—
   From lack of interest to developing life-time values and positive patterns of taste in reading.

Because the IRP deals with several dimensions of the reading process, a variety of reading activities develops simultaneously within the classroom. The teacher must orchestrate these varied activities. Thus the role of the teacher is vital to the success of the program; teaching individualized reading demands much more teaching by the teacher than when she carries out someone else's detailed plans. But the results are rewarding.

From the teacher's point of view, the major variables of the IRP fall within these major categories:

1] Instructional Materials—books, printed matter, pictures, and learning resources of all types;

2] Patterns of Instruction and Teaching Procedures—pupil guidance and conference time;

3] Classroom Organization and Room Arrangement—management to facilitate maximum learning by each individual.

The subordinate, but important, components of record keeping, book sharing, creative writing, and evaluation of pupil progress are adjuncts to these major features of IRP.

## Defining the Teacher's Role

The IRP is teacher centered, rather than manual centered. As such its structure is not rigidly defined. Many teachers acting independently of one another have developed and organized the program according to their own conception of its operation. Therefore, certain aspects of the program may vary considerably from teacher to teacher, depending on the teacher's personality and on her interpretation of the goals of such a program. Some basic principles of the IRP, however, are common to nearly all classroom situations where it is employed. Typical common elements are:

1] Literature books for children predominate (rather than textbook series) as basic instructional materials;

2] Each child makes personal choices with regard to his reading material;

3] Each child reads at his own rate and sets his own pace of accomplishment;

4] Each child confers with his teacher about what he has read and his progress in reading;

5] Each child carries his reading into some form of summarizing activity;

6] Some kind of record is kept by teacher or child or both;

7] Children work in groups for an immediate learning purpose and leave the group when that purpose has been accomplished; and

8] Word recognition and related skills are taught and vocabulary is accumulated in a natural way at the point of the child's need.

320.

In order to implement the IRP a teacher must have a balanced program in which each major instructional element is given appropriate consideration.

***Instructional Materials*** The world of children's books can be described as one of wonder, beauty, and breadth of knowledge. One essential feature of IRP is providing children with the opportunity, under guidance, to explore the boundaries of their world through the fascinating world of children's books. A prime objective of IRP is to extend and enrich each child's thinking and appreciation by exploring books.

By contrast, most basal textbooks are anthologies of short stories or collections of excerpts from well-known original stories and books. Because each selection is short and discrete, there is little or no opportunity for the child to become deeply involved. All children need to read materials in which ideas are given extensive treatment and stories are fully developed through intricate patterns and complex story lines. Children, as readers, need to come to grips with total presentations as much as with selected parts—albeit the best parts of the book-length selection.

***Teaching Procedures or Patterns of Instruction*** The IRP is based on the premise that each child's pattern of learning cannot be predetermined in either rate or manner and that learning can best be guided within a highly flexible framework allowing for considerable pupil choice and teacher judgment. Consequently in the IRP during the course of the school year, children are given the opportunity to read extensively in many books of all kinds and descriptions while, by contrast, children in the basal program are reading intensively in but two or three books. During the typical reading period in the IRP each child is reading silently in his own book, at his own pace, independent of other children.

If each child is permitted to choose his own reading material according to his own interests, his own stage of development, and his own proficiency in reading, he must assume certain responsibilities as a member of the class. It is the teacher's task to assess the degree of responsibility exhibited by each individual reader; but each child must help. Each freedom given to the child is balanced by a corresponding responsibility to himself—and to others. He must not behave so as to interfere with the responsible behavior of his classmates. Each child must sense how he fits into this kind of reading program. The alert teacher has this concept constantly in mind.

The teacher-pupil conference is central to the individualized reading

3201

program. Within the conference the teacher uses all of her talents and knowledge to intensify the child's involvement with ideas and words. During this time teacher and child may discuss appealing aspects of the book, ideas presented by the author, implications of these ideas as guides for living, and the child's personal reaction to the book. The teacher determines whether the child knows in general what is happening and can select the important ideas in the book. In the IRP selecting important and interesting parts takes precedence over recounting in detail all that has been read in the book.

During the conference the child may occasionally request to read aloud particular passages which he has identified as being particularly significant. Accordingly, preparation must be made for sharing this book with the teacher and/or with the class. The teacher may make a note of the need for particular kinds of help or may provide some on-the-spot instruction. Guidance may be given in book selection when this aid is deemed necessary. The particular needs of the child involved determine the substance of the conference.

The art of questioning developed by the teacher assumes great importance in the success of the conference. Questions generally fall within one of three categories:

1] Appropriateness of the book—is the child selecting appropriate materials?
2] Appreciativeness of the book—is the child developing tastes and values?
3] Values gained from the book—is the child learning important ideas?

The key to the conference lies in the questions asked by the teacher. Learning to discuss books through the art of skillful questioning is undoubtedly the single most important instructional tool at the teacher's command. To be successful in the IRP a teacher must learn to discuss books with children when she knows the content and when she doesn't.

During the reading period there are many facets of the reading act in which the student may engage. In addition to long periods of sustained silent reading, he may be keeping records of what he has read, discussing his reading with his teacher or his classmates, writing creatively as a follow-up to his reading, or selecting his next book or reading material. Whatever phase of the total set of activities is engrossing him, he is making his choice; and, therefore, with a minimum of teacher guidance, he can be responsible for taking his own next steps. Obviously unless a

high degree of self-management is attained, the program will be less than completely successful.

## Classroom Organization

A teacher may well ask how to manage a classroom when each child is in a different place in a different book. With more than thirty children this aspect is certainly a challenging if not a frightening situation. Room arrangement in IRP, however, is markedly different from the basal textbook program wherein children are assigned to groups according to their reading levels. Once grouped in the textbook program, directed reading instruction is presented to all children in the subgroup simultaneously according to a highly defined procedure within the manual. Each child, bound by the pace of his group, must accomplish material according to the directions given by the teacher.

In individualized reading opposite conditions prevail; children spend blocks of time reading extensively from a variety of possible choices. Typically each child remains at his seat reading silently the book he has chosen unless he is being given direct instruction by the teacher or working on some other activity related to his reading. While waiting his turn to talk with his teacher each child is busy reading.

Group activities, while almost continuously present, are not the order of the day as is so with the basal textbook program where, typically, instruction is given through ability groups. In IRP when several children are identified by the teacher as needing help in the same area, they are grouped together temporarily for this specific instruction. Children often like to work together in a common interest group and often do so without the teacher necessarily being present. Frequently, several children decide to read the same book independently and then meet to discuss the important ideas and what the book has meant to them.

## Skills Development

Word-recognition skills are important and in an individualized program a child chooses, in part, the words he needs to learn. In addition, the teacher adds words which the child needs to learn and which will help most his learning to read at this time. There are opportunities for the child to make his own word lists or cards, to make his own dictionary or glossary, and to compile word files. Time is set aside to study these sources or to play word-card games — to participate, in fact, in a vocabulary growth.

323.

Skill development, however, is more than learning letters, sounds, syllables, and words. It is learning to think when the printed word is the medium of thought. Long periods of sustained silent reading provide the practice needed for thoughtful reading. In the IRP developing the power of sustained silent reading is paramount. There is no reading skill of greater importance than that of skilful silent reading. The IRP provides the best opportunity to develop this skill.

## Keeping Records

Teachers who use the individualized approach to reading instruction have found it necessary to devise ways of keeping records of the children's development in reading. Some find that a card or notebook page for each child can be easily used to record notes informally during the pupil conferences. Others use a more formalized checklist on which the teacher periodically records her observations concerning her children's performances and abilities. Such records serve as a guide for her own planning and a basis for reporting to parents on the child's progress.

## Creative Writing

A concomitant value of the IRP is its close relationship with children's writing. This interaction between reading and writing reinforces development in each language area. Wide reading inspires increased writing. Writing not only demands disciplined thinking but enhances basic language development. Both qualities are basic to reading improvement.

## Future Developments

Increasingly the IRP will become an integral part of the total reading program. Children must be granted the privilege of exploring the exciting world of ideas provided for them in the world of children's books. Those responsible for helping teachers improve the quality of reading instruction can endeavor to do so by giving definitions to individualized programs for teaching reading.

324.

105.

Vol. 10, 65

## 5. The Nongraded Primary

418.

MARY JEAN KLUWE
Detroit Public Schools

THE IDEA of the nongraded primary unit is sweeping the country. Starting as a gleam in the eye of Robert Hill Lane at the NEA Convention in 1935, implemented in a few schools in Milwaukee in 1942, slowly growing on an experimental basis in other school systems, and then blooming throughout the country in the late 50's, it is today estimated that by 1966, 26 per cent of the elementary schools in the United States will be organized on a nongraded basis at the primary level.

What is a nongraded primary unit? It is simply a school organization in which the concept of grades for school beginners is eliminated.

Nongraded schools are scarcely new. In the early days of our country all schools were nongraded. The one-room school house was built by members of the community. The self-styled schoolmaster wrote his own qualifications and presided over all the scholars, including the "beginners" and the "enders."

Then came the revolution! The new country needed literate citizens so that the ideals of democracy could be unified and transmitted throughout a large land in which means of communication were still meager. How was this to be done? The answer was schools and more schools.

Much has been written about the efforts to provide an elementary education for many children in those early days. It will not be repeated here. Sufficient, at this time, is the reminder that the first graded school was opened in Quincy, Massachusetts, in 1848, and that by the year 1870 most schools in the larger towns and cities were graded.

The graded school was not a sin against childhood as some people would have us believe. It was a sincere effort of a young country to provide the best education possible under the circumstances. By dividing the school years into segments called grades the schoolmaster became a teacher of one grade in which the range of achievement of the pupils was considerably lessened.

The graded school brought textbooks which were an improvement over the few general spellers and readers generally available. Graded readers brought controlled reading vocabularies. The choice of readers was extended; pre-primers preceded the primers; each grade was supplied with at least two books instead of a single reader per grade.

The education of teachers was improved. Normal schools made their appearance. Eventually, in some places, a college degree was required to become a teacher.

In the graded schools it was gradually

recognized that all children were not alike. Late in the nineteenth century teachers were considering, and in some cases practicing, grouping for reading instruction. Early in the twentieth century the concept of individual differences was widely accepted. The working slogan of teachers became, "Take the child where you find him and go on from there."

No, the graded school was not all wrong. It had, however, two crippling weaknesses. It had grades and it permitted promotion or nonpromotion at fixed times.

In what way are grades crippling weaknesses? It is difficult to say what is wrong with things that do not, in reality, exist. A certain level of reading ability is considered commensurate to one grade in one school and to another grade in another school.

In their book, *The Nongraded Elementary School,* Goodlad and Anderson published data involving, among other things, the chronological ages, mental ages, and reading achievement levels of pupils in several different grades. Taking as an example the data for the second grade, we find that the oldest child was one year and seven months older than the youngest. There was a difference of more than five years in mental age. In reading, the most advanced pupil scored more than three and a half full grades beyond the least advanced. These are not special data constructed or selected to make a point. Teachers who make similar charts involving their own pupils have found, and will find, the same thing. The simple truth is that there is no such thing as a grade.

If there is no such thing as a grade, how can there be promotion and nonpromotion? There can be promotions and nonpromotions because it is a truism that a thing need not be real in itself to be real in its implications.

In graded schools, many of us have promoted and failed children. The results have been generally nonsatisfying. Sometimes we have felt that we have promoted children to failure. On the other hand, sometimes we have failed children and found they did no better the second time around.

In a nongraded school we will have no grades and therefore no promotion or nonpromotion. What will happen? Well, the school will not fall down. Milwaukee tried it in 1942 and now, twenty-four years later, the Milwaukee schools are doing very well. Other school systems have followed suit.

What have been the experiences of the teachers who have been actively engaged in carrying on a primary unit? They have found that it: (1) is a system of organization which does not have grades, promotions or nonpromotions and therefore opens many positive possibilities, (2) does not require teachers to discard materials and methods which have been found tried and true, (3) frees teachers from beginning with a given grade every year or semester and so automatically wasting days and weeks in review, (4) relieves children from tensions incurred by worry over promotion or nonpromotion, and (5) brings greater challenge to the more mature children and more understanding and help to the less mature.

How is the nongraded primary unit organized? Since reading is the core of the curriculum in the primary years, many schools have organized their units around reading levels. Each level consists of skills to be learned and appreciations to be developed. The success of the plan is based on flexible grouping. A child works with a group of children with whom he is at home. He progresses, as nearly as possible, at his own rate. He does not repeat and he does not skip. If he is absent for some time, he is, on his return, placed in a group of children with whom he is comfortable. In September he goes on from where he left off in June. When it is to his advantage, a child is transferred to a group in the same room or to a group in another room.

Organizing a nongraded primary unit on the basis of reading levels is neither ideal nor easy. In the first place, children vary in achievement in areas other than reading. Ideally, they should also be grouped in these areas. In the meantime, organizing on the basis of reading levels is practical and possible but freighted with problems. It can degenerate into substituting several reading levels for three grades. The success of the unit is based on really flexible grouping which, in turn, is based on time-consuming, meticulous attention to each individual child's needs and means of fulfilling them. The primary unit teacher must broaden her perspective of the teaching of reading; she needs to be cognizant, not only of what she is doing, but of what other teachers are doing and why. The nongraded organization should not be permitted to provide the lax teacher with an excuse for not raising each child to his highest potential. Flexible grouping must not be used to slough off behavior problems.



The organization of a primary unit is hard work. It requires time, understanding, patience, cooperation, and imagination. It is creative work. The best advice those who have had experience can give us is to (1) formulate what we think primary education should be, (2) decide if a nongraded primary unit will help us live our philosophy, and (3) if the answer is in the affirmative, to go ahead, but make haste slowly. There are no pat answers. Each school must organize in terms of its children, its staff, its environment, and its physical plant.

326.

106.

**The Individualized Rdg. Pgm: a guide for Classroom Teachers: IRA Conf. Proc., Vol. 11, Part 3, 1966. Lyman C. Hunt Jr. (Ed.),**

MARIE KUPRES

DIRECTOR OF ELEMENTARY EDUCATION
HAMMOND, INDIANA

# 5. Individualized Reading: Focus on Skills

THIS PRESENTATION pertains to teaching of skills in an individualized reading program (IRP). Whether skills should be taught in an individualized reading approach is not an issue. If we consider an individualized reading approach as a basic program of reading instruction (and this point of view we do hold), then it is evident that a sequential skills development is an integral part of a program. There are many excellent professional materials dealing with the teaching of reading skills. These references are appropriate for an individualized reading program as well as a program based upon basic-reading textbooks. Therefore, rather than to discuss the importance of a skills program, this approach will be to present a personalized view of an individualized reading program in operation. The development of skills will be evident.

A visit will be made to an intermediate-grade classroom where a teacher has an IRP in progress. The reader will recognize that the classroom and teacher being described are composites of many classrooms and many teachers. The reader also should be aware of the fact that this presentation is based upon the particular experiences teachers have had with an individualized reading approach in Indiana schools.

## Framework for Skills Instruction in an Individualized Reading Program

Before entering a classroom, a background of the total school philosophy in which this program operates will be helpful. The focus of the teaching staff and the educational program is on the individual learner — his interests, needs, and growth in learning. There are curriculum guidelines for teachers in all areas of the curriculum; however, flexibility and creative approaches to teaching and learning are encouraged. Reading instruction is viewed as having a broadened base which means that many



327.

327

materials of various kinds are used. A multiple-text approach is used by those teachers who base their instruction on a reading textbook series along with the use of trade books, reference material, and periodicals. Also, reading skills are taught throughout the school day in all areas of the curriculum.

For the past ten years in this school system, many teachers have moved voluntarily into an individualized program. These individualized reading programs are not supplementary programs begun after a basic-text program is completed. They are planned and initiated as basic instructional programs, especially designed to meet the individual needs of children. The skills program encompasses the broad spectrum of skills; comprehension and interpretation abilities are developed as well as word-attack skills.

## Teacher Preparation

How does the teacher personally prepare for individualizing reading instruction? Here is one teacher's response.

> "I felt for a period of years the need to broaden my reading program. I found basic and supplementary texts and workbooks too confining for advanced readers and unrealistic for less able readers. My first step toward an individualized approach was to read everything I could find on the subject. I attended in-service meetings planned by the curriculum department, visited other classrooms where the program was used, and talked to teachers who were utilizing an individualized approach. I had a wide range of reading materials for self-selection, a variety of skills practice materials, and a good understanding of reading skills. I was willing to try a more flexible program. I realized there would be periods of trial and error and that an individualized reading program would truly be 'learning-on-the-job.' I was very concerned about teaching the skills for each child and giving the kind of help necessary to develop independent readers."

This teacher describes some of the first steps taken to initiate an individualized program:

1] Identifying the basic-reading skills to be developed in an IRP. Of course, these are the same skills which are developed sequentially in a basal text program. Basic texts were checked as well as the Barbe Reading Skills Checklist (*2*). All the skills were listed from readiness through advanced levels. When completed, the list in-

328.

cluded skills related to vocabulary development, comprehension, interpretation, and reaction, as well as the word-perception skills.

2] Noting the skills needed to help children read effectively in all areas of the curriculum.

3] Making a skills check sheet for each child for use during individual conference periods.

4] Gathering all the skills instructional material that could be located. Other teachers recommended materials which they thought were especially valuable for skills development. (Skills materials selected and used will, of course, be different for every teacher and every group.)

Based on experience in teaching, the teacher commented that all children do not learn skills according to a pre-determined pattern, that skills are not wholly learned at any one time, and that reinforcement and refinement of skill utilization is necessary as children mature and use more advanced materials. It is a common experience to find that some intermediate-grade children need instruction in word-attack skills specific to the usual primary grade program, while others need help with more difficult word-attack skills. This same condition is also true for individual children as related to comprehension and interpretation skills. It is an error to assume that a child who reads above grade level can go along on his own. Such a child can profit from help in refining and extending reading skills, especially those skills related to evaluating ideas, reading between the lines, making judgments, seeing relationships, and building vocabulary. In-depth instructional periods with very capable readers are, by the way, one of the most rewarding experiences to be found in an IRP.

## Analysis of Pupil Needs

Once the teacher has made the initial steps in self-preparation, how are the needs of the pupils determined? Another teacher responds to this question:

"I believed that the most crucial aspect of developing an IRP was to establish the proper atmosphere and to build pupil attitudes about the program. For several weeks, we discussed procedures for self-selection of books, ways in which we would work together on skills development, and plans for recording and sharing our experiences. Parents were thoroughly informed about the program and asked to visit the classroom to see the program in operation.

329.

During the first scheduled reading periods, pupils explored and read widely from the materials available in the room. It was during this time that I planned an individual conference with each pupil in order to analyze his strengths and weaknesses."

Prior to individual conferences, the teacher prepared for meeting each child by

1] securing available data regarding each child's ability and achievement, perusing cumulative reading records, and noting pertinent comments made by former teachers. (If test scores were not available, aptitude, diagnostic, and achievement tests of reading were given to obtain an overview of each child's potential and his reading level. Care was taken to determine if any physical impairment was present that might retard reading.)
2] requesting each child to fill in the Kottmeyer Interest Inventory and Background Information Data Sheet (*3*).

In general, the teacher used the following procedures during the initial conference:

1] discussed the interest inventory with each child to learn about pupil attitudes and interest and to establish a friendly and personal relationship.
2] heard each child read orally from basic-reading texts using materials below, at, and above the child's achievement level. (Tape recordings of the child's oral reading were made and replayed, and the child was helped to identify some of his reading needs. Oral reading provided a quick check on comprehension, fluency, and word-attack skills.)
3] helped each child plan a reading folder for his own reading record. (One section was to contain a cumulative account of books read; another was to relate to his skills needs; and another section was to be an account of his personal daily reading plans.)

At the conclusion of the conferences, the teacher's records for each child included test data, information on attitudes and special interests, a sequential listing of skills to be used as a checklist, and any other pertinent data which might provide clues for meeting the child's needs.

## Teaching the Skills of Reading

Once an analysis of pupil needs has been made, what steps are taken by the teacher and children as they work on skills development? For this

information, a visit to the classroom provides an opportunity to observe the children's activities under the teacher's guidance.

Note that the reading period is scheduled for at least an hour. Each child has his reading folder open on his desk so that his personal plans for the day's reading period can be seen. On the chalkboard, the teacher and children have written their plans for the reading period. Some children have requested brief individual consultations. These brief consultations enable the teacher to give personal direction to those children who indicate that they need help to proceed before they have an individual conference. Consultations serve as "hurdle helps" and might answer such questions as, "May Jim and I work together with these analysis cards?" "May I plan a play about my book?" "May John and I go to the materials resource center to check some reference material?" "Will you help me with the directions for this practice sheet?"

Some children are scheduled for conferences of five-to-ten minutes each with the teacher. Conferences will include oral reading, discussion, and teacher-pupil diagnosis of skills needs. Three children are to meet as a needs group to work on syllabication. An interest group of five children is scheduled for a discussion of the biographies they have read. The rest of the class will be reading the books they have chosen or will be engaged in related reading activities.

The children's responses to questions about their activities were:

1] "My plans for today are to work on a skills sheet on outlining. I'm writing a report for social studies, and I found I needed this help. When I'm finished with this lesson, I plan to read a book I chose about football which is my favorite sport. Would you like to see my special vocabulary list that deals with sports? All of us have made lists of words that have a special meaning for us or that interest us. I've learned to use the dictionary to make sure I have the exact word I need."

2] "I'm working on this material that will help me pick out main ideas. I am writing a paper on space exploration. I found so many books and articles that I asked the teacher how I could choose the ideas I need from so many places. The book I'm reading right now is on space, but I have read books from many categories throughout the year."

3] "I'm working on practice material to help me with root words, prefixes, and suffixes. Sometimes I have trouble working out new

330.1

words, and I don't spell too well. The teacher has helped me choose some workbook pages to help me. Our whole class has been taught to use glossaries in science and social studies books, and I have my own dictionary to use when I need help with a word. Jim and I are reading the same book on the Old West. When we share the book with the class, we are planning to do it wearing costumes."

4] "Our group is discussing biographies we have read. We will be discussing ways famous people are alike, the kinds of things they have done, and how we feel about these people. Often, the teacher joins us, and occasionally the principal drops in. We are planning to discuss our books at the next P.T.A. meeting because our parents like to hear about what we are reading."

5] "We are practicing reading orally using this social studies filmstrip. We previewed it, worked out the new words, and made an outline to help us when we present and discuss the filmstrip with our class. We have prepared a test to give to the class to help us check whether we have gotten across the major ideas of the filmstrip."

6] "There are three of us in this group working on syllables. This one is our last group meeting because we think we have enough practice on this skill and can go on to some other things. Syllables aren't so hard to figure out if you say the word first and listen carefully to the number of vowel sounds."

7] "I'm re-reading this book because I'm going to present a book review to another class. We are often invited to visit other classes. They enjoy hearing about the books we read and often borrow them. I'm choosing parts of the book with lots of action and conversation so it will be interesting. This one is an easy book for me, but sometimes I pick easy books because I like them."

8] "This is my conference period. The teacher is checking my practice page on vocabulary. Then we will discuss the book I'm reading and talk about the characters in the story. I've chosen a few paragraphs to read orally which I think really describe some of the characters. I found some hard words, but I was able to get them when I used the word-attack skills I know. I really had a hard time making up my mind about what books I wanted to read. My friend reported on this book, and it sounded swell; so I chose it, too. I have my reading folder with me so I can record what my next activities will be when the teacher and I decide what I need to do."

337.

Children have been observed in this classroom reading for enjoyment, working on skills independently or in needs groups, participating in an interest group, and conferring with the teacher. We have seen that the reading period utilized materials from all of the content areas, as well as from trade books. In any one day, the activities include many of the skills of reading, depending upon the needs of individual children. Teacher comments include:

1] "Did you notice that the children know why they are doing what they are doing? Every assignment or activity serves a purpose for them. In other words, in this approach, children take an active responsibility for their own learning."

2] "No doubt, you were aware of the varied kinds of activities going on. The children are very creative about planning their reading activities. We schedule a specific period for reading, but the reading activities permeate the whole day. Children use unassigned time in purposeful ways which are related to reading. It never ceases to amaze me how quickly the children grow in their ability to become independent learners."

3] "Personal writing by the children has improved immensely. Many of their activities require skill in writing. On occasion, we have found it helpful to have lessons for the entire class which relate to improving writing skills. Spelling has improved as children develop their own vocabulary lists and use the dictionary more efficiently."

## Reading Skills in Content Areas

How do children who participate in individualized reading work with content materials? Teachers' comments follow:

1] "We have basic and supplementary texts in all of the content areas. Because the children have experience with a wide range of reading materials, they tend to seek a variety of materials in the content areas which enable them to follow their special interests. We have gathered many trade books, newspapers, magazines, paperbacks, and filmstrips. Because these materials in the content areas become part of our room collection, children select some of these materials to use for their personal reading. Skills instruction might also be based on these materials. Children are aware of the fact that they must approach the reading of content materials differently from the way they would approach the reading of library books. They

also recognize the need to adjust their rate of reading as they use different material."

2] "The individualized reading approach permeates the whole day and has become a way of living and learning with us. I find that I teach reading skills all day in every subject. Children truly utilize the skills of reading as learning skills in all curriculum areas."

## Evaluating the Skills Program

How effectively does an IRP help children become more efficient and independent readers? Teachers' responses include:

1] "The basic skills tests we give show that the children do an excellent job in learning skills."

2] "The children read more extensively and with more enjoyment. Parents who visit the classrooms are amazed at the pupil interest and participation. Many parents tell about the increased number of books children read at home."

3] "Reading in the content areas shows remarkable improvement. One of the real surprises to me was the improvement in arithmetic problem solving."

4] "Because of personal involvement, probably the biggest plus-value of individualized reading is the positive self-concept developed by children. Children feel better about themselves!"

5] "I am pleased that oral reading is done for valid reasons."

6] "There are several factors that concern me. One concern relates to what will happen to these children if they move to another room with a different program. However, I do feel that they are becoming independent readers. If they return to basic-text instruction, they will be able to pursue their broad interest in reading through the content subjects and during leisure time. Also, as I view my role, it is to give the best possible experiences to my pupils each year. Another concern is that I spend a lot of time on reading. However, since much of the reading is related to all areas of the curriculum, I feel no learning area is neglected."

## Summary

It is obvious that this brief glimpse of an IRP in action is somewhat limited. The classroom groups described above are in their fourth year in school. Primary teachers might well ask how effective an IRP would be

.334.

for their children. First-grade teachers, especially, might wonder whether this approach is a realistic one for initial reading instruction. The introduction to reading and skills can be done through the use of experience charts and stories dictated by the children. These materials can be used to teach sight words and the beginning word-attack skills. Some teachers find it helpful to use a basic-text series for this beginning stage. The monograph, *A Practical Guide to Individualized Reading* (*4*), has proved to be a good source of help for teachers working with children at the beginning-to-read stage. Once the child has moved beyond this stage, the organization and procedures suggested throughout this presentation can be appropriate when adapted to the maturity of primary-grade children.

Other important factors are apparent. One is that teachers must be willing to experiment with this approach, for the program is as individual as the teacher wishes and the needs of the children dictate. This program demands that the teacher be open-minded, independent in action, inquiring in spirit, and respectful of children as individuals. Another factor is that while research has shown that children in an individualized program do as well or better in reading achievement and skills development as in a basic-text approach, it is recognized that results of performance tests do not tell the whole story. It is the positive change in pupil self-concept, the growth in independence, and pupil commitment to "learning how to learn" that encourages teachers to continue individualized reading programs.

### Selected References for Teachers

1. Barbe, Walter B. *Educator's Guide to Personalized Reading Instruction.* New Jersey: Prentice-Hall, Inc., 1961.
2. Barbe, Walter B. *Barbe Reading Skills Check List, Highlights for Children,* 803 Church Street, Honesdale, Pennsylvania.
3. Kottmeyer, William. *Teacher's Guide for Remedial Reading.* St. Louis: Webster Publishing Company, 1959.
4. Lazar, May (ed.). *A Practical Guide to Individualized Reading.* Board of Education, City of New York, Bureau of Educational Research, Publication No. 40, 1960.
5. Meil, Alice (ed.). *Individualizing Reading Practices.* Bulletin No. 14, Practical Suggestions for Teaching, New York: Bureau of Publications, Teachers College, Columbia University, 1958.
6. Schatz, Esther E. (ed.). *Making Sure of Skill Development in Individualized Reading.* Ohio: Publications Office, Ohio State University, 1965.

335.

7. Veatch, Jeannette. *Reading in the Elementary School.* New York: The Ronald Press Company, 1966.

### Selected Pupil-Practice Material

1. Lyons and Carnahan, 407 East 25th Street, Chicago, Illinois. *Phonics We Use Series, Books A, B, C, D, E, F.*
2. Harcourt, Brace and World, Inc., 757 Third Avenue, New York, New York. *Word Analysis Practice: Intermediate Series, Levels A, B, C.*
3. Garrard Publishing Company, 862 Scarsdale Avenue, Scarsdale, New York. *Dolch Sight Materials: Picture Word Cards, Popper Words, Sight Cards, Group-Word Teaching Games, Sight-Phrase Cards.*
4. Webster Division, McGraw-Hill Book Company, 1154 Reco Avenue, St. Louis, Missouri. *Conquests in Reading; Word Analysis Charts* (set of 5); *Webster Word Wheels* (63 wheels); *Reading Skills Cards* (224 cards).
5. Houghton Mifflin Company, 2 Park Street, Boston, Mass. *Workbooks, Readiness Level to Grade 6, Reading for Meaning Series, 4th Edition, 1966.*
6. The Macmillan Company, 60 Fifth Avenue, New York, New York. *The Macmillan Reading Spectrum Workbooks* on Vocabulary Development (6 levels), Reading Comprehension (6 levels), and Word Analysis (6 levels).

[redacted].
336.

107.

Vol. 5, 1960

## b. Can the Teacher Improve Pupil Discrimination in Television and Reading?

124.

SISTER MARIAM, O.P.

A few years ago children referred to food, clothing, and shelter as the essential framework of human living. Now it could be more properly expressed: food, clothing, shelter, and television. TV has captivated children and maintained its hold on them; it is the greatest media of communication in history. Think of the tremendous good it can accomplish! Television will not need to outwit good reading habits in children. With direction on the part of parents and particularly teachers children can be led to be discriminating televiewers. They can also use this guidance to help them select a wide variety of reading matter; thus providing growth in reading.

Can teachers improve pupil discrimination in televiewing and reading? Can we help children set up standards for good televiewing habits and can these habits carry over into the reading act? Will it be possible to use television as a springboard for going to the library?

First of all, let us look at the present programs aimed at children. Nearly half of these programs are "action dramas." This includes the classic Western, the adventure story, the crime mystery, and science fiction. Much of the remaining time is devoted to puppet shows, circus programs, children's talent programs, quiz contests and comedy. To make the most of its possibilities, TV should deliberately seek to stimulate learning as well as to entertain. Perhaps teachers can determine what programs do this to a greater degree and direct children to such viewings. For children, virtually all experience, no matter how intentioned or casual, has some significance for developing ideas and understandings. It should be the business of television-for-children to provide one of the many bridges across which the child may pass from his fragmentary, fantasy world to the reality of adult life and social maturity.



### The Chicago Study

The experiment performed with about 500 sixth grade children in Chicago attempted to determine the degree to which a teacher can improve the televiewing habits of her children. We had a two-fold objective: to direct children's TV choices and to lead them to good reading of a wide variety.

The children for the project were selected from six schools in differing socio-economic areas. Nine classrooms participated. Three of the classrooms were in high economic area neighborhoods, three were located in average socio-economic areas and the last three were selected from neighborhoods that were less privileged. We will refer to these schools as being placed in groups one, two, and three; one being the highest and three being the lowest. The classrooms in each group were designated as classroom A, classroom B, and classroom C. Thus we had a horizontal basis of study with the groups 1, 2, and 3 and a vertical basis of study with the groups A, B, and C. No statistical measurement was used to further equate the groups. It would appear that the teachers in the nine classrooms were fairly equal in teaching skill and also in their level of enthusiasm. The norm of classroom achievement within each of the groups was similar.

In October, all 500 children were given a televiewing and reading interest questionnaire. For this we wish to thank Nina Flierl who permitted us to use a revised form of her questionnaire for this study. Children listed their favorite kinds of books as well as their favorite TV programs. The questionnaire included a record of the amount of TV viewing and the number of books read. A place was also given to record the number of trips children made to the library.

Children in groups A and B received a "television tip sheet." This tip sheet was given to them weekly or bi-monthly. It contained lists of commercial television programs available for this age group, and also suggested reading that might be related to these programs. Book lists, the Horn Book, and the Children's Catalogue were used as sources for the readings. Let me read you a typical tip sheet as these children received it. For the week of January 24, the following programs were suggested: *Conquest* which was showing "Mystery of the Sun," *Our American Heritage* whose feature was "Destiny West," *Walt Disney Presents* which carried "Wild Burro of the West," *High Road* showing "Resurgent Japan," and *World Wide's* "Assault on Antarctica." Suggested reading for "Mystery of the Sun" were: *The Sun and Its Family* by I. Adler; *Solar Energy* by F. M. Bransby; *Exploring the Plants* by R. A. Gallant. "Destiny West" suggested: *John C. Fremont* by Sanford Tousey; *Kit Carson — Trail Blazer and Scout* by D. S. Garst; *Trails West and Men Who Made Them* by E. M. Dorian; and *Jonathan Goes West* by Stephen W. Meader. "Wild Burro of the West" prompted such titles as: *The Burro That Had a Name* by Lorraine Beim; *The Burro of Barnegat Road* by Delia Goetz; and *The Boy and the Donkey* by Diana Pullein-Thompson. "Resurgent Japan" offered the following: *The First Book of Japan* by Helen Mears; *Japan in Story and Pictures* by Lily Edelman; *The Dancing Kettle* and *The Magic Listening Cup*, both by Yoshiko Uchida. Finally, the program "Assault on Antarctica" brought out such titles as: *The First Book of the Antarctic* by Captain J. B. Ichenhower; *Ice Island* by F. X. Ross; *Richard Byrd* by Guernsey Van Riper; and *Conquest of the North and South Poles* by R. Owen.

Other tip sheets included listings (programs and books) about history, sports, music, machines, science, astronomy, biography, and space. A distinction was made between groups A and B. The teachers in group A besides giving the tip sheet to their children motivated interest in the programs and also in the related reading. "These will be some worthwhile programs to include in your television schedule this week," or "if you like these programs I know you will want to read these books." In some cases discussions relevant to the programs and books were carried on.

Teachers in group B also gave the TV tip sheet to their children but did nothing to further motivate interest in either the programs or the books. It was just passed to them at the beginning of the week. The

[redacted].

337.

children in group C did not receive the tip sheet.

Let me just mention the programs and give a few credit lines to the networks who cooperated in this project. We limited the viewing to commercial television programs. In order to secure advance listings we elcited the interest of ABC, CBS and NBC. All these networks responded by sending us advance listings of programs and in most cases a description of the show was included. From the information we selected the desired television programs and then chose corresponding readings. All teachers using the tip sheets tried to have the books available for the children. All had access to school libraries and neighborhood branch libraries.

### Results for Teaching and Children

The statistical analysis of the first questionnaire or pre-test showed no significant differences in groups A, B, or C. No significant differences existed in number of visits to the library, amount of television viewing, and books reported read or interest in books. Most children visited the library between two or three times a month; they viewed television about three hours per day and showed interest in humorous stories, mysteries, and adventure tales. Interest in other areas of reading was noticeable to a degree.

During the first week in March the free-response televiewing and reading interest questionnaires were again given to the same children. At the end of this study which investigated the effect of the incidental use of commercial television to promote the amount and type of reading we noticed no significant difference in reading interest. There was a drop in television viewing on the part of all groups. For the entire sample without regard to groups, the children visited the library less frequently after than before the intial questionnaire was administered. However, more books were read by each group after the initial survey. We may account for this by the fact that the books were actually in the classrooms for children to enjoy. The fact that children were or were not encouraged to read did not seem to be a factor.

In analyzing the free-response questionnaires given to group A, we may comment that there appeared to be a shift in the televiewing pattern. Fewer children were watching *Bugs Bunny, Superman,* and *Have Gun, Will Travel,* and more were watching *The Alaskans, John Gunther,* and *Our American Heritage.*

Other significant results of the study should be noted too. TV tip sheets promoted interest and enthusiasm among children. Teachers had a more favorable attitude toward commercial television. They were seeing how some programs could benefit children. They were enthusiastically aware that they were able to direct children's TV habits and, better still, to show them the importance of deriving more by reading. In some cases "Destiny West" had brought them to read about Kit Carson and John Fremont; *High Roads* "Geography of a Diamond" had sent them to the encyclopedia and to a special book on diamonds by H. S. Zim. What these teachers were recognizing was that some television programs can be excellent fare for boys and girls; while children were discovering that some programs have more value than others. The facts learned on TV were in most cases isolated events; books could help bridge the gap into their lives.

Despite the limitations of TV, which we have not mentioned in this paper but which are most familiar, it has potentialities for children.

### The Teacher's Responsibility

As teachers we have an opportunity to encourage children to select programs with discrimination and to evaluate them. The criteria is in the form of a question: How is this helping me be a better person? Then this forceful medium of entertainment will grow in wider proportions as a medium of enlightenment for our youngsters.

Parents and teachers continue to set forth their convictions that many children read less than they did before they had TV. It is true that the present sixth grade population with whom we worked cannot even remember a time when they did not have it. Librarians, on the other hand, optimistically report that the quantity of children's reading has increased. This is reassuring but we know many children are reading less. Perhaps our focus on TV as educators should be to help children become discriminating and selective viewers. Let's encourage children to choose programs that are not only good entertainment but those which provide worthwhile information as well. It is our job to guide and direct. We need to study the TV listings and see what television gives children in one week—everything from a story of Eli Whitney's invention of the Cotton Gin to a flight to the moon. Here is a veritable bonanza for teachers; here is something we can use to promote interest and stimulate children in becoming critical thinkers through more intelligent televiewing.

338.

108.

Vol. 9, 64.

## 2. Teacher-Pupil Rapport on Television

128.

SISTER MARIAM, O.P.

"EDUCATIONAL television is something of a paradox. Part of the greatest medium ever developed, it sells nothing. Part of a medium with unequaled ability to attract people, it programs for minority audiences. Part of a highly expensive medium which needs the support of more than a billion dollars of advertising in money annually, it gets no advertising support and exists on Spartan budgets and a rickety financial structure of gifts and school money. Part of a great entertainment medium, it invites its audiences to come not for entertainment, but rather for work. It invites them, not to relax, but rather to stretch their minds in order to capture new ideas and information."[1]

Part of this paradox is in the nature of television itself, which is a great entertainment device, and is also a great educational medium. Some of the people who first experimented with it were educators. Experimental telecasts were made at the University of Iowa as early as 1932. But it was the entertainment side that drew audiences and rapport. We note that there were 200 commercial stations, supported by advertising, before the first non-commercial educational station went on the air. The very fact that it went on the air at all was a tribute to the vision of a small group of educators who resolved that the teaching qualities of television should not be lost sight of in the great success of its entertainment qualities. For the next few minutes we are going to look at educational television, and at children's use of it. We are going to ask the question, "What part does television play in the life of a child?" This seems to be a better way to ask the familiar question: "What effect does television have on children?"

In one sense television doesn't have an effect on children. It is a great pleasure source of experience, a supermarket of gratifications to which the child goes for what he wants. It is a rewarder of drives, a reinforcer of responses, a teacher of facts and skills, and a source of information. If what television offers is important, more important is the set of needs and expectations which the child brings to television.

The dynamics of the relationship between the child and television in not a simple relationship. But we must be concerned with it. The most heard statements about television are often only half-truths: for example, that brighter children see less (or more) television; television is good (or bad) for children; television builds (or reduces) aggression, etc.

The forces that enter into the dynamics of a child with television are more complicated than that. I think of four sets of forces that compose this relationship: the child's intelligence, the class norms within which the child functions, his family and his peer group.

What a child is, before he goes to television, what relations he can build up within his family and his peer group, what needs he takes to the television set, are the chief components of television's effect on him. But there is more than this. There is interaction between the need he brings to television and the reinforcement that the program provides for him.

For this reason, what is available on television is important in terms of all children. The selective reinforcement the child gets from 10-25 hours of televiewing a week must have something to do with what he knows and what he does. The television teacher must thoroughly understand the four dynamic relationships mentioned above and plan the program with this in mind. If a seventh grade child is going to devote his waking hours to a medium that is an unequaled teacher of facts and skills, then that medium will have an influence on the developing picture of his environment.

If there is sufficient opportunity on television to challenge the bright child, if there are programs to satisfy the kind of norms that encourage the seeking of information and the gratifications of the fine arts, then we are giving children the kind of relationships with television that are noble and which provide a means of self-betterment.

[1]Wilbur Schramm et al. *The People Look at Educational Television*. California: Stanford University Press, 1963.

129.

MULT

339.

109.



## 2. Organizing Instruction in Ungraded Primary Schools

136.

MARJORIE MARTIN
Carroll Lane School, Corpus Christi

*All children grow, but not alike.*
*One must be lifted, another must climb,*
*A third is just tall enough to see for himself* — ANONYMOUS

HOW MANY of our classrooms today are geared just to that third who are tall enough to see for themselves? Does the traditional graded structure in most of our nation's elementary schools adequately teach those who must be lifted and those who must climb?

The traditional graded school, with its emphasis on arbitrary standards for each grade, is an attempt to make the child fit the school. Rather than ask if the child is ready for school, we should be asking if the school is ready for the child. We know that children make progress in terms of their own growth and ability, not by the calendar or by a set pattern.

The Non-graded Primary Unit is one form of organization which attempts to fill the needs of individual children by breaking down the rigid lock-step system of grades. Numerous variations of this plan exist and are called by many names, such as "Non-graded," "Ungraded," "Appropriate Placement Plan," "Continuous Progress Plan," "Unit Plan."

Two Corpus Christi elementary schools, Carroll Lane and Wilson, are piloting a Continuous Progress program in which eight reading levels are substituted for the three grades of the primary school. Corpus Christi has no public kindergartens. The child who has much difficulty climbing three large steps may be able to take smaller steps with ease. Extension of time necessary for mastery of skills is possible at each level.

These eight levels correspond to the usual basal textbook organization:

Level 1—Readiness
Level 2—Pre-Primer
Level 3—Primer
Level 4—First Reader
Level 5—2-1 Reader
Level 6—2-2 Reader
Level 7—3-1 Reader
Level 8—3-2 Reader

Beginners are given a readiness test and are grouped according to results of the test and the teacher's judgment. Information about some children who have attended private kindergarten is also available. Progress through the primary years will vary according to the child's readiness for school, his ability, maturity, motivation and other factors. The basic difference is in *timing*: every school expects its students to take the eight steps, but the graded structure demands a certain proficiency at a certain time. If mastery is not attained, the traditional teacher must either retain the child or promote him when she knows that he is not ready for the next grade.

Under a continuous progress plan, average and superior children will move through primary school at about the same rate as they would in a graded structure, but with greater opportunity for enrichment. Immature and less able children will move at a slower pace. Some will catch up, after initial immaturity, and others will need four years in primary school *(3)*.

### Examples of Progress

The following chart of Carroll Lane grouping at the beginning of the 1965-66 school year shows the enrollment in seven levels distributed among ten teachers. Children were initially placed at their independent reading level.

In September the ten classes were grouped like this:

| Teacher | Levels 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| A | 20 | | | | | | | |
| B | 26 | | | | | | | |
| C | 30 | | | | | | | |
| D | 30 | | | | | | | |
| E | | 4 | 12 | 10 | | | | |
| F | | | 7 | 19 | | | | |
| G | | | | 30 | | | | |
| H | | | | | 9 | 20 | | |
| I | | | | | | 16 | 15 | |
| J | | | | | | | 36 | |

On April 12, the picture looked like this:

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| A | | 9 | 14 | | | | | |
| B | | | 13 | 16 | | | | |
| C | | | | 30 | | | | |
| D | | | | 29 | | | | |
| E | | | | 4 | 10 | 11 | | |
| F | | | | | 8 | 18 | | |
| G | | | | | | 29 | | |
| H | | | | | | | 16 | 15 |
| I | | | | | | | 7 | 23 |
| J | | | | | | | | 32 |

345.

When a child has completed a basal reader, related activity book, and supplementary books, he is given the basal reader achievement test. If test results show that the necessary skills have not been mastered, the child continues with new stories from another reader at the same level of difficulty. Each child must master the skills at each level, but he is never made to feel that he has failed by having to read the same material a second time.

### Some Results of the Corpus Christi Plan

Both Wilson and Carroll Lane staffs feel optimistic about the results of non-grading. Christine Rockefeller, principal of Wilson School, states that the number needing four years in primary school has been reduced from 14 percent to 4 percent.

Ginn Reading Readiness tests were given to all children in Carroll Lane at the beginning of the 1965-66 school year. The children in the present sixth grade class were not in the non-graded plan; fourth and fifth grade children were. Test results show the number of children who scored in the "Need Special Help" category were: Grade VI, 14; Grade V, 4; Grade IV, 5. There were approximately 90 children in each grade level. Graded tests are of little value for statistical purposes in the non-graded primary unit, since children are not expected to be "on grade level" at a specific time. However, these tests have great merit as diagnostic tools.

During the first non-graded year a study of the progress of each class was made, using Metropolitan Achievement tests as one evaluative measure. Fall and spring medians of two second-year groups are shown as follows. The top group was composed of children who were ready for 2-1 readers in September. Children in the low group needed to start at pre-primer level.

| | *Top Group* | | *Low Group* | |
|---|---|---|---|---|
| | *Fall* | *Spring* | *Fall* | *Spring* |
| *Word Knowledge* | 3.2 | 4.6 | 1.8 | 2.4 |
| *Word Discrimination* | 3.9 | 4.6 | 1.8 | 3.0 |
| *Reading (Comprehension)* | 3.3 | 4.4 | 1.3 | 2.7 |
| *Spelling* | 3.6 | 4.7 | — | 3.4 |
| *Arithmetic* | 2.6 | 3.9 | 1.6 | 3.0 |

### Summer Maintenance Classes

A constant concern of primary teachers is the child's regression of skills during the summer. Therefore, maintenance reading classes were established on several Corpus Christi elementary school campuses. Classes were limited to 15 to 25 children. Those children who attended were able to maintain skills already attained and in many cases to move ahead to the next level. New, fresh reading materials were provided for these classes.

### Emotional Climate

Students, teachers, and parents feel less pressure since there is not the constant threat of retention. Also, grouping practices allow some children chances for leadership that are not found in completely heterogenous groupings. Since all children are allowed to progress at their own rates, they do not experience constant failure. It must be admitted, however, that those children who are making slower progress are aware of that fact, and sometimes put excessive pressure on themselves or each other.

### Parents' Acceptance

For the most part, parents accept and approve the Continuous Progress program. It simply "makes sense" to them. Several parent meetings are held during each term, at which the principal explains the program and answers questions. There are frequent parent conferences in which teachers and principal discuss the program. To be sure, there are some parents who have difficulty accepting the idea that their child needs four years to complete primary school because they cannot understand the difference between this plan and retention. These parents usually have not attended the orientation meetings.

### Reporting to Parents

Pupils' progress is communicated to parents by a combination of oral conferences and a report card, which is a variation of the primary report cards used in other Corpus Christi schools. The card is

a checklist, which includes the child's current reading level and a listing of the meanings of the levels.

A cumulative reading list which includes textbooks mastered and dates each level was begun is kept in the child's cumulative folder.

### Some Problems

A number of problems have been encountered and some have not been solved. First, state textbook policies make it difficult to have appropriate books available at all times. Title I funds should make acquisition of books possible for eligible schools. Carroll Lane has purchased some extra books since it is imperative that children have a variety of basal readers. Multi-level materials and library books are also widely used. New materials need to be developed. Frank Brown says that we should not use presently available "graded" books at all. "They just won't do."

Another problem relates to the non-grading of other subject-matter fields. Traditional teachers have become accustomed to placing a child in a level of reading appropriate to his ability, but lack of time has made it impossible to teach other subject areas in ability groupings. Because of this experience, teachers tend to keep grade level requirements in mind when planning curriculum areas other than reading. Evidence shows mathematics has been fairly well adapted to "levels" teaching and achievement scores have risen comparably with reading scores. However, much in-service training is needed for teachers to adjust the total program. A child who needs a fourth year in Carroll Lane Primary School still will have a limited amount of repetition in some areas.

Too large an enrollment in primary classes is always a problem. Non-grading does ease the situation since it reduces the span of abilities in a room, but the teacher still does not have the time she needs with individual children. Smaller classes for immature children, teacher aides, student teachers, and cooperative teaching can improve the program.

### The Role of the Principal

The principal must be deeply involved in all the planning and development of the non-graded school. To him falls the responsibility of leading the staff in planning and initiating the program, "selling" it to the community, orientation of new staff members, grouping the children, obtaining materials and advising teachers about their uses, and maintaining enthusiasm.

He must make the final decision concerning the children who will be given the extra year in primary school and help parents and children understand and accept the idea. He also makes the decision on whether some very able children should complete the eight levels in two years and go on to fourth grade. Frank R. Dufay says, "Is it ever proper to penalize a child for learning at a rapid pace by depriving him of a year of schooling? I must contend that it is a rather strange reward" *(2)*.

The principal must know the children, the teachers, and the curriculum. The success of the non-graded program, as is the case with any new program, will depend in large measure upon the positive support of the building principal.

### Summary

Brown tells of a youngster who had looked forward to beginning school. But after the first day he was disenchanted and, in answer to questions said, "Oh, school is not such a much!" *(1)*

If we are to make our schools "such a much" for all our children, we must provide a curriculum which will challenge not only those who are just tall enough, but also lift those who need lifting, and provide unlimited space for those who must climb.

The non-graded school will not solve all the problems. In fact, it is just a key which opens doors through which teachers often discover more problems. But through those open doors we see a flexible school organization in which teachers may give children greater opportunities for growth and development.

#### REFERENCES

1. Brown, B. Frank. *The Appropriate Placement School: A Sophisticated Nongraded Curriculum*. West Nyack: Parker Publishing Company, 1965.
2. Dufay, Frank R. *Ungrading the Elementary School*. West Nyack: Parker Publishing Company, Inc., 1966.
3. Goodlad, John I. and Anderson, Robert H. *The Nongraded Elementary School*. New York: Harcourt, Brace and World, Inc., 1963.



342.

110.

## 6. The Lehigh-Bethlehem i.t.a. Study

?

265.

ALBERT J. MAZURKIEWICZ

USING PITMAN'S notational system of 44 symbols for the 40 sounds of English for initial teaching in reading instruction, the following chronology of events marks the progress and reports observations on the first eight months of activity with the first grade population of the Bethlehem schools. The statistical description of the experimental and control populations noted below indicates, though small differences in the IQ means exist, that the populations are equivalent and that differences in results obtained in testing reading achievement may be accepted as a reflection of the different print medium used in teaching the populations. Both populations are using a language-arts approach to reading instruction in which writing is used as an aid to reading development, experience story use is emphasized, wide supplemental reading is encouraged, and variety in the basic material for instruction is promoted.

The lower scores noted in the i.t.a. population, while non-significant, are a reflection of what might be described as non-random assignment of children to classes based on readiness test findings

343.

110.



TABLE I

POPULATIONS BY ALPHABET

| | i.t.a. N=454 | | T.O. N=874 | | |
|---|---|---|---|---|---|
| Variable | M | SD | M | SD | t Test |
| C.A. | 74.87 | 5.22 | 74.37 | 5.11 | .116 |
| IQ Language | 98.09 | 17.13 | 100.28 | 15.64 | .375 |
| IQ Non-Language | 99.36 | 16.92 | 101.93 | 15.93 | .435 |
| Total IQ | 99.00 | 15.26 | 101.34 | 13.57 | .398 |

administered in the spring, 1963. It was noted that one class included almost all of an intake of "verbally deficient" and Puerto-Rican children of one school. A suggestion that the principal had "loaded the dice" in making up his first grade classes was apparent. Nonetheless, the differences between the total populations are slight and represent a stratified sampling, on geographical—social—cultural bases, of the population.

Following two and one-half days of workshop training, fifteen first grade classes got underway in September, 1963. Workshop training included two elements of prime importance: how to write the alphabet and how to spell using the Initial Teaching Alphabet.

The methodology used emphasized the deciphering of the printed code by teaching children to associate each of the 44 symbols of i.t.a. with the spoken sound it represents. Simultaneously, reading activities that develop thinking skills were stressed to insure that children approach reading from the outset as a meaning-getting process.

Teaching was paced to the individual's rate of learning. A structure of whole group teaching from the outset was soon modified by these rates of learning. Small groups and individual instruction became the rule.

Initially, teachers were very anxious about using the Initial Teaching Alphabet in writing activities, showing concern about the correct spelling. After about three weeks, this anxiety disappeared and a new anxiety showed up typified in the question we all hear around the schools: "How far have the other teachers gotten?" After about six weeks, concern was shown that children were not reading "books"—that is, children *were* reading materials of various kinds (experience stories, sentences, words and phrases, and simple story content of pre-primer supplementary reader type) but statements such as "last year they'd be in a pre-primer by now" and "we aren't reading Book Two yet" indicated this form of anxiety.

At the ten-week mark, about 10 per cent of the population had completed *Book Two*. Observations and teacher reports indicated that these children could read and deal effectively with a vocabulary of 320 words. This compared favorably with about the same percentage of last year's grade population which used the traditional alphabet and achieved third pre-primer status in the co-basal program in the equivalent time. Under the T.O. procedure children could read 66 words on a purely sight basis.

At the beginning of the fifth month of instruction, significant differences in the reading and writing abilities of the i.t.a. population from the control population were observable. A range of achievement existed from the ability to write connected discourse of several paragraphs of seven to nine word sentences down to the ability to write the words which could be constructed from whatever number of sounds were mastered by a given child.

In examining achievements of the control and experimental populations at beginning of the sixth month of reading instruction, it was noted that no standardized test could serve adequately. It was further recognized that any transliterated informal test would be an adequate measure only if the instructional level achieved by a child on such a test did in fact agree with the difficulty level of the material he could read instructionally though the print medium be different.

The Botel Word Recognition Inventory was chosen as the test which seemed suitable for this purpose and was transliterated for use with the i.t.a. populations. As noted by Botel, an achievement of 70 to 80 per cent word recognition at any level indicated the child's instructional level.

The results below were achieved by sub-samples which represent a middle to upper class socio-economic segment of the

[redacted] 344.

population. The sub-samples were statistically equivalent in chronological age and IQ to the major populations.

TABLE II

WORD RECOGNITION LEVELS IN SUB-SAMPLE POPULATIONS (MIDDLE TO UPPER SOCIO-ECONOMIC LEVELS)

| Botel Inventory Instructional Level | ITA Population N-78 | Traditional Alphabet Population N-58 |
|---|---|---|
| 4 | 7 (9%) | 0 |
| $3^2$ | 21 | 0 |
| $3^1$ | 17 (57.7%) | 2 (3.6%) |
| $2^2$ | 5 | 1 |
| $2^1$ | 8 | 2 |
| 1 | 9 | 10 |
| P | 4 | 20 |
| PP and below | 7 (9%) | 21 (36.2% |

The picture of two sub-sample populations which are heterogeneous in intelligence (IQ 78 to 140) indicates first that it is entirely feasible to develop a high degree of reading skill (beginning third reader instructional level) by the end of the fifth month of first grade with a small segment of the population using the traditional alphabet and a language arts oriented basal program of instruction. However, the results indicate that some i.t.a. taught children achieve at a higher point in the equivalent time (fourth reader instructional level) and that a significantly greater number of children achieve third reader (or above) instructional levels. Almost 58 per cent (57.7 per cent) of the i.t.a. population achieved an instructional level of $3^1$ or higher on the transliterated Botel Word Recognition Inventory as compared with 3.6 per cent of the traditional alphabet populations who achieved third reader instructional status on the identical but T.O. form of the inventory. The median achievement of the i.t.a. population was at the $3^1$ level whereas the median achievement of the control group was at the primer level.

An examination of the lowest portion of this population, those achieving word recognition scores which classifies them as having an instructional level of Pre-Primer or below, indicated that only 9 per cent of the experimental population was found at this level as compared with 36.2 per cent of the control population.

At the beginning of the seventh month, children in the top groups were using i.t.a. materials which have readabilities extending from 2.6 to 3.2 and were dealing with such word recognition skills as contractions, possessives, and comparatives.

Transition was begun by a large segment of the population in the third and fourth month of instruction. Five to eight per cent of average classrooms (middle class populations) were reading T.O. materials at that time though instruction was continuing in i.t.a. materials, indicating that transition was evolving naturally. No confusion was evident in children's movement from one medium to the other.

Although word recognition skill was demonstrated (as noted above) as significantly better for the i.t.a. population the test of reading ability generally accepted is one which reflects the child's ability to deal effectively with a given reader not only in recognizing words but also in understanding the content.

The levels of the i.t.a. taught children in the eighth month of school indicates that 24 per cent of these first grade children are instructionally placed in third reader materials, 51 per cent are reading second reader materials, 15 per cent are reading first reader materials and 11 per cent are reading at or below a primer level. In contrast only 6 per cent of the children taught using the traditional alphabet (T.O.) are found in second reader materials. Seventy four per cent of this group are found in first reader material and a larger percentage (20 per cent) are found in primer or below materials than is seen in the experimental group. (Tables III, IV, and V are based on returns on 95.3 per cent of the population.)

Since over one-third of the experimental population is made up of the group of children usually described as "culturally deprived," a comparison of the achievement of the two groups shows a somewhat distorted picture. This large portion of the experimental population includes most of the children of Puerto Rican and Negro ancestry in the Bethlehem first grade population as well as most of the children of low socio-economic status and

TABLE III

TEACHER-DETERMINED INSTRUCTIONAL LEVELS OF THE TOTAL POPULATION

| | i.t.a | T.A. |
|---|---|---|
| Reader Level | N=451 | N=814 |
| 3rd | 24% | 0% |
| 2nd | 50.7% | 6.1% |
| 1st | 14% | 74.4% |
| Primer or below | 11.3% | 19.5% |

as such (because of verbal or language deficiencies) negatively weights the experimental population.

Examining achievements of children with a similarly good socio-economic status, a greater disparity in achievement in favor of the i.t.a. population is seen.

TABLE IV

INSTRUCTIONAL LEVELS OF THE EXPERIMENTAL AND CONTROL POPULATIONS FROM GOOD SOCIO-ECONOMIC LEVELS

| | i.t.a. | | T.A. | |
|---|---|---|---|---|
| Reader Level | N=270 | | N=612 | |
| 3rd | 108 | 40% | | 0% |
| 2nd | 144 | 53.3% | 50 | 8.2% |
| 1st | 15 | 5.6% | 496 | 81% |
| Primer or below | 3 | 1.1% | 66 | 10.8% |

Over ninety-three per cent of the i.t.a. population are reading second reader or above material (with 40 per cent at third reader) as compared with only 8.2 per cent of the T.O. group who are found at the second reader level. A significantly smaller group of the i.t.a. children are at the primer or below point, seemingly indicating a virtual elimination of the non-reader in the i.t.a. population while the frequently expected amount is found existing in the T.O. population.

An examination of the low socio- economic groups previously identified as containing children with bilingual and other language difficulties subsumed under the category "culturally deprived" shows marked achievement differences in favor of the i.t.a.-trained population.

TABLE V

INSTRUCTIONAL LEVELS OF LOW SOCIO-ECONOMIC POPULATIONS

| | i.t.a. | | T.A. | |
|---|---|---|---|---|
| Reader Level | N=181 | | N=202 | |
| 2nd | 83 | 47% | | 0% |
| 1st | 48 | 26.5% | 110 | 54.5% |
| Primer or below | 48 | 26.5% | 92 | 46.5% |

Though reading levels and the degree of achievement found in the two populations favor the i.t.a. groups, differences in achievement in writing (as shown in creative compositions) is as marked. Furthermore, informal spelling achievement tests indicate that the i.t.a. trained group is experiencing high success (86 per cent accuracy) on words regularly spelled in either i.t.a. or traditional orthography.

Transition, begun by children in the top groups of each class in November and December, was started in April (1964) by the top groups as a formal procedure. This is based on a recognition of the most frequent traditional spelling patterns for sounds. As such it is seen to be the beginning of a formal spelling program. Teacher reports indicate that 65 per cent of the good socio-economic population are now (and have been for some time) reading traditional alphabet library materials of varying levels of difficulty, that this percentage of the population should complete the formal transition phase in a week or two and be reading only traditional alphabet materials by May 15th. Such reading will, apparently, be in third reader materials.

346.

111.



Vol.7 ,62

# 6. An Experimental Evaluation of the Carden Method

JOHN A. MCCOLLUM

As the result of an article in the September 9, 1961 issue of the *Saturday Evening Post* entitled, "These Children Love to Read," the Mae Carden system of reading instruction has received a great deal of national attention.

However, the Carden program was brought to the attention of the Berkeley Schools during the summer of 1960 when Miss Carden conducted a series of lectures sponsored by a local organization known as "Parents for Better Education." At that time Miss Carden was quoted as saying. ". . . a bright child can be taught a thorough working knowledge of phonics and can be reading independently in any material that interests him after four months of hour daily lessons. The slower child is usually on his own at the end of the first grade." Also, it was stated that schools using the system report, "(1) never any nonreaders, (2) no retarded readers, (3) children with I.Q.'s as low as 75 are regularly taught to read."

The content of Miss Carden's lectures resulted in much concern in relation to the "unusually" heavy emphasis on phonics to the seeming neglect of other word attack skills; the distortion of letter sounds; the unusual method of phonetic notation; and the apparent lack of comprehension and critical reading skills.

However, in view of the fact that Miss Carden will not allow her materials to be purchased and/or utilized until one has attended her series of lectures, and in view of the great interest expressed by a large number of parents, it was decided to obtain the materials and structure a program to evaluate the Carden system.

During the school year 1960-61 this evaluation took the form of three teachers utilizing the total Carden program. A comparison of the reading results of their classes was made with three classes utilizing the Scott, Foresman Series. The experimental and control classes were matched as nearly as possible on the basis of age, sex, racial origin, intelligence, socio-economic background, achievement level of children; and the background and ability of the teachers.

In addition, six school districts which were reported to have utilized the Carden system successfully for a number of years were surveyed for pupil achievement. Five districts responded as follows:

School District No. 1
"Our pupils achieve well above marginal norms."

School District No. 2
"Excellent — No nonreaders at the end of grade one; scores in standard tests unusually high."

School District No. 3
"Excellent—almost phenomenal by standard test results."

School District No. 4
"While our reading scores compare favorably with national norms, it would be incorrect to say that all children are reading up to grade level. The great majority of our children read well above grade level, but we have the occasional child who reads

[redacted]

347.

below grade level as I think is true in any school system. It is not a legitimate claim for the Carden material, or any other material, that every child will be reading up to grade level."

It should be noted that none of the above districts submitted achievement test results.

**Table Number 1**

School District No. 5
18 Years on Carden Program

**READING TEST RESULTS**

Tests: Reilly Primary—Grade 1
Stanford Primary "M"—Grade 2
Iowa Basic Skills—Grades 3-8

| Grade | Number Tested | Median | Grade Range | Below Grade | % Below Grade | More Than 1 Yr. Below |
|---|---|---|---|---|---|---|
| 1 | 60 | 2.8 | 1.4-3.0 | 3 | 5% | |
| 2 | 59 | 4.5 | 2.8-6.4 | 0 | 0 | |
| 3 | 69 | 5.3 | 2.0-7.3 | 3 | 4 | 2 |
| 4 | 49 | 5.5 | 3.8-8.6 | 6 | 12 | 1 |
| 5 | 65 | 6.7 | 3.8-9.7 | 21 | 32 | 8 |
| 6 | 72 | 8.3 | 5.3-10.8 | 18 | 25 | 5 |
| 7 | 68 | 8.3 | 5.5-11.4 | 22 | 32 | 10 |
| 8 | 66 | 9.3 | 6.2-12.7 | 23 | 34 | 7 |
| Totals | 508 | | | 96 | 18 | 33 |

In reference to Table Number 1, the number of children reading below grade level should be noted. Research would indicate that pupils receiving an unusually heavy emphasis on phonics in the initial reading process, might have difficulty with the sophisticated reading skills of the upper-grade level.

Notice in Table 1 that an increasing number have difficulty at the intermediate and upper-grade level, with 34 per cent of the pupils reading below grade norm at the 8th grade level.

The following three tables illustrate a comparison between the Berkeley control and experimental groups. Although a statistical comparison cannot be made between the New Jersey and Berkeley test results, the New Jersey scores are also illustrated.

**Table Number 2**

**COMPARISON OF FIRST GRADES**

(High Socio-Economic Level)

| Test | Berkeley Scott, Foresman Calif. Reading Achievement | Berkeley Carden Calif. Reading Achievement | New Jersey Dist. No. 5 Carden Reilly Primary |
|---|---|---|---|
| I.Q. Range | 87-127 | 92-133 | Above Average Community |
| Grade Norm | 1.8 | 1.8 | 1.8 |
| Achievement Range | 1.8-4.2 | 1.8-4.5 | 1.4-3.0 |
| Median Score | 3.3 | 3.4 | 2.8 |
| Number Scoring Below Grade Level | 0 | 0 | 3 |

A comparison of the above Berkeley classes indicates no significant differences.

**Table Number 3**
**COMPARISON OF FIRST GRADES**
(Average Socio-Economic Level)

| Test | Berkeley Scott, Foresman Calif. Reading Achievement | Berkeley Carden Calif. Reading Achievement | New Jersey Dist. No. 5 Carden Reilly Primary |
|---|---|---|---|
| I.Q. Range | 68-142 | 68-133 | Above Average Community |
| Grade Norm | 1.8 | 1.8 | 1.8 |
| Achievement Range | 1.2-4.4 | 0.7-3.6 | 1.4-3.0 |
| Median Score | 3.7 | 2.8 | 2.8 |
| Number Scoring Below Grade Level | 3 | 10 | 3 |

A statistical analysis and comparison of the above Berkeley classes indicates a definite and significant difference in favor of the control (Scott, Foresman) class. However, variables which were not apparent at the time of selecting the control class invalidates the results of this comparison.

Unpredicted variables proved to be a significantly higher intelligence level of the control group, and the unavoidable absence for five weeks of the teacher for the experimental group.

**Table Number 4**
**COMPARISON OF THIRD GRADES**
(Above Average Socio-Economic Level)

| Test | Berkeley Scott, Foresman Gates Reading Survey | Berkeley Carden Gates Reading Survey | New Jersey Dist. No. 5 Carden Iowa Basic Skills |
|---|---|---|---|
| I.Q. Range | 88-147 | 87-150 | Above Average Community |
| Grade Norm | 3.8 | 3.8 | 3.8 |
| Achievement Range | 3.4-8.6 | 3.1-7.7 | 2.0-7.3 |
| Median Score | 5.4 | 5.1 | 5.3 |
| Number Scoring Below Grade Level | 2 | 5 | 3 |

A statistical analysis and comparison between the above Berkeley control and experimental classes indicates that there is no significant difference between these two groups.

In the March, 1961 issue of the *Reading Teacher,* Professor Arthur Gates published an article analyzing the achievement test results of a school system in New York which had utilized the Carden system for a number of years.

When one examines the reading achievement of the children in this school, as illustrated by Table Number 5, the results appear to be quite favorable. In all three grades pupils are about a full year ahead of their grade.

**Table Number 5**

| | N | Average Number Years Carden | Actual Grade Position | Average Reading Grade | Difference |
|---|---|---|---|---|---|
| Grade 3 | 91 | 2.85 | 3.9 | 4.86 | +0.96 |
| Grade 4 | 80 | 3.33 | 4.9 | 5.97 | +1.07 |
| Grade 5 | 72 | 3.42 | 5.9 | 6.88 | +0.98 |

**Table Number 6**

| | N | Mental Grade | Reading Grade | Difference | AQ |
|---|---|---|---|---|---|
| Grade 3 | 91 | 5.30 | 4.86 | —0.44 | .92 |
| Grade 4 | 80 | 6.10 | 5.97 | —0.13 | .97 |
| Grade 5 | 72 | 7.00 | 6.88 | —0.12 | .98 |

However, when these scores are compared to the mental grade, it is obvious that these children do slightly less well than do children of the same age and intelligence generally in America.

During the current school year our evaluation has taken the following form. Twelve experienced and capable teachers have subjectively analyzed the materials; a linguistic analysis is being made by John Carroll of Harvard University (which we have not as yet received); and a survey has been made of other school systems in New York and New Jersey which have used, or are still using, the Carden program.

The *Saturday Evening Post* article indicated that over 90 public school districts in New York and New Jersey are using the Carden program. A careful survey by the New Jersey State Department of Education revealed that only 14 districts in that state are currently using the materials, with seven more having previously used the program and subsequently discontinuing its use.

Sources from New York uncovered only four school districts in that state currently using the program.

Questionnaires requesting achievement and intelligence test results were sent to all 25 districts. Responses were received from eleven.

School District No. 6

"We find the Carden method to be a very successful method of developing word recognition skills."

**Table Number 7**

School District No. 6

| Grade Level | Median I.Q. (C.M.M.) | Median Reading Achievement (Iowa Basic Skills) | Difference M.G. Minus R.G. (Estimate) |
|---|---|---|---|
| 3 | 106 | 2.9 | —.49 |
| 4 | 112 | 4.4 | —.30 |
| 5 | 112 | 5.4 | —.30 |
| 6 | 108 | 6.3 | —.40 |
| 7 | 101 | 7.2 | —.07 |
| 8 | 98 | 8.2 | +.17 |

It should be noted that in grades 3-6, pupils are reading considerably below the national average.

School District No. 7

"If Carden is faithfully followed, the entire Language Arts program is

[redacted]. 350.

effective. We do have difficulty in training new teachers in the system, but the greatest handicap is the increased enrollment, bringing new pupils of grades 2-6 up to date in a three to five week program. We have . . . a full-time reading teacher doing remedial as well as Carden introduction. . . .In September to November, the new pupils receive three lessons a week in addition to their regular class reading introduction."

School District No. 8

"Although our children are doing well, I would not advise a school system to adopt the Carden method. There are too many problems connected with it. It often becomes a parent problem if the system wishes to change, teachers become so dependent upon it they are afraid of any other series, spelling can be ruined for poor spellers, and the materials are poorly published. Its appeal lies in the quickness that children in the first grade begin to read. However, by the time the child reaches upper grades there is no evidence that he reads any better than those trained by other methods."

School District No. 9

The program is used in one first and one second grade class on an experimental basis.

"Metropolitan Achievement Tests and Gates Primary Reading Tests were given in both first and second grades. The Carden classes appear to do better in word recognition than do those taught by other basic series, but in comprehension and average or total reading the classes taught by other methods appear superior. In saying this we have taken into account the difference in ability indicated by group tests of mental ability."

School District No. 10

Discontinued because: "Our September tests showed a need for comprehension work in all grades, so pupils are currently working in the new Ginn Readers at levels which may be somewhat lower for this time of year in school systems where a Basic reader may have been used before.

"My predecessor, ..... says, 'We have no non-readers in grade one.' Here we must define the term non-reader, because we do have many poor readers in our upper grades. Despite the use of three remedial reading teachers last year, we have a large number of second grade pupils who have yet to complete their primer readers. These pupils are not non-readers, but they are making what I call slow progress."

School District No. 11

Discontinued because: "The entire program presents a system of phonics. We felt that since children learn to read by many methods that a program offering a diversified approach (including phonics) would better suit our needs."

School District No. 12

Discontinued because: "Too narrow in approach to the developmental needs in reading. Reading content boring and unrelated to the lives of our children. Average and slow pupils were inclined to become 'word sounders' on vocabulary that should have been automatic. Mentally able children were slowed in reading. Testing programs in reading showed no over-all gain in comprehension achievement while reading rate dropped noticeably. After seven years of Carden, the percentage of children needing special reading help was greater than before Carden was begun. New children coming into the system who had had other reading methods, including phonics, found it difficult to change to Carden."

School District No. 13

Responded to questionnaire by indicating that their policy was such that they could not discuss or submit for examination their test results.

School District No. 14

"We used the system for a few years but it has been discontinued. Teachers were not too enthused to continue. We didn't think the program suited our needs."

School District No. 15

This school indicated that they have not used the Carden system. However, a number of pupils with pre-

vious Carden training have been enrolled. "I don't believe I should condemn the program on the basis of our few experiences. Perhaps just the unsuccessful ones reached us. However, we were not happy with what we had seen. These youngsters who should have been reading at least second grade level had no sight vocabulary and no word attack skills; they *could not read*. They were tense and generally disinterested in reading."

School District No. 16

Discontinued because: "Children's scores on standardized achievement tests in the areas of reading comprehension and vocabulary were very low; this was true even of children with better than average intelligence. Analysis showed that children could 'sound out' and say words, but they lacked comprehension of the meanings of those words. Further analysis indicated that the rate of reading was extremely slow; children were still concentrating on words rather than on phrases and sentences as meaning units. The Carden method had given the youngster an early advantage in *word enunciation only*. Children lacked or were poor in:

Comprehension of the meaning of the material

Skills of interpretation, analysis and inference

A variety of reading techniques for different types of material

Dictionary skills (This is an area of great confusion due to the Carden notation, which is unique.)

Interest or enthusiasm for wide, independent reading."

Of the 12 teachers currently evaluating the Carden program, one teacher feels that the program has real merit; two feel that aspects of the program are worthwhile; and the other nine are convinced that the program if followed per se would be harmful to children.

## Conclusion

Dishonest and distorted claims have been made to support the value of the Carden system of reading instruction. Available evidence overwhelmingly supports the belief that the majority of children can achieve at a higher level by the proper use of a basal system of reading instruction.

[redacted]

351.

time when the subject appears in the curriculum. After the report is given, questions are asked by the pupils; then teams of pupils are given questions, usually of the elaborative thinking type, which require them to make relationships of the report to previous knowledge.

What are the psychological factors involved in pupil team learning? One should always be wary of psychological rationalizing, since either side of any question may be supported by psychological principles. However, here are some of the psychological potentials for team learning. With partners there is the stimulus of group activity; mutual support provides security; a team is much more likely to reveal a difficulty in understanding. In the more complex skills, such as problem-solving in arithmetic or word analysis practice, there is an exchange of systems, techniques, and information. Where elaborative thinking is involved, the contributions of one member spark additional ideas from others. Critical thinking is involved in the evaluation of answers; wrong or weak answers are rejected by the group. There is usually a greater number of pupil responses per minute; in team learning, it is always one's turn. It is possible, also, to adjust learning tasks much more closely to pupil needs, providing many levels and types of practice at the same time.

The place of the teacher is still paramount in team learning. The teacher sets the tasks; she reacts to every team product, although she does not mark the group product, but only the interspersed individual tasks which test growth in abilities. She disciplines when the noise of a group indicates non-working noise, usually by having the team members work alone for a period. She is still the "authority figure" but much less so, since much of the recitation is to one's peers. Since superior learners require little teacher attention in team-progress subjects, the teacher has much more time for remedial work with slow learners. Superior learners are guided in library research tasks which reach far beyond the textbook. The teacher decides the balancing of classroom activities: when there will be whole-class presentations, when whole-class discussions will be profitable, when multi-sensory aids will be used, when enrichment activities are necessary, when individual tasks are to be set, when tests are to be given. She generally decides the membership of teams, although the more "democratic" minded teachers may allow more pupil choice.

The usual fears of team learning expressed by teachers before they try it are the following: the amount of classroom noise, the possible loss of discipline, poorer pupils loafing and leaning on the more capable, the possibility of cheating when answers are readily available. There are sensible ways around these presumed difficulties. Few of them arise if the assignments are important and the classroom climate is good. The teacher can readily control the noise level by insisting on lower voices; she can readily detect non-working voices.

Team learning is probably as old as the human race. One can readily imagine a cave man asking a neighbor for advice on skinning a buffalo or for getting a badger out of a hole. Certainly the male graduate student in professional schools has used team learning since the earliest days on the university; the bull session is highly regarded as an effective learning activity. If it had not been invented earlier, it would have been discovered by telephone teams of junior high school girls doing homework. Individual teachers have used pupil teams for many years, especially in rural schools where the multiple grades prevent individual attention to pupils. One wonders, however, why it has not become an established technique in all classrooms, since it seems to fit the nature of the child so well. Certainly, it has much to offer that is not present in lonely, insecure individual study.

### *b. Pupil-Team Learning in Reading in the Intermediate Grades*

WALTER J. MCHUGH

The quest for high quality in reading instruction is receiving increased emphasis from two directions: first, from teachers desiring to improve the learning opportunities and services for children in his classroom; second, from a public highly

357

committed to excellence in the education of America's youth. In the last few years many approaches for improving reading instruction have evolved. Pupil team learning is one of these newer practices designed to improve the quality and quantity of childrens' learning experiences and needs. It is easily adaptable to most grouping patterns—dual progress, track, core, Joplin, and team teaching plans. Pupil team learning is concerned with the learning opportunities the teacher makes in teaching to individual differences *within* his particular classroom, regardless of the type of grouping followed in a school organization.

In reading, as in other school subjects, when the learning needs of pupils are well served, a superior teacher is responsible. Pupil team learning attempts to establish a learning environment which provides maximum opportunities to serve the following learning needs of pupils:

1. Adjusting the reading instruction to varying levels of ability
2. Adapting reading instruction for differing rates of progress with accompanying mastery
3. Giving specific and special help at points of weakness
4. Enhancing pupil self-discipline, initiative, and self-direction
5. Enriching reading experiences, making them meaningful, significant and useful.

A variety of patterns in team learning allows the maximum utilization of pupil time. The group size is dependent on the nature of the learning task. These teams are temporary and flexible. Teachers must circulate among groups and supervise the learning, checking the progress of each group. Children who do not work well with their group may be disciplined by being made to work alone. The following learning tasks present different types of pupil team organization.

### Team Progress Techniques in Skills Instruction

*Word Skills.* Intensive practice in word recognition, word meaning, vocabulary development, and word analysis practice produces greater learning than occasional, incidental practice given at intervals during the school year. A series of lessons devoted to practicing one skill, *i.e.*, a "package" of lessons, taken either from workbooks, manuals, supplementary, or teacher-made materials will serve to accomplish this task. Children are paired in teams of equal ability in skills learning. Answer sheets are made readily available. Each child keeps a record of his own progress. Two children work each lesson together, taking turns to answer, with one checking the other, correcting errors when they are made. When the lesson is completed, they check their answers with an answer key. When a lesson is successfully completed and errors corrected, the team moves to the next lesson in the series. Each team progresses at its own rate through a series of self-directing and self-correcting lessons. There is no waiting for other teams to finish, nor for the teacher to correct their work. Re-grouping is sometimes necessary when children are progressing at different rates, or in case of absenteeism.

*Pupil Teams for Oral Reading.* Two or three pupil oral reading teams replace much of the "sit and wait your turn" of classroom learning, and allow for increased pupil participation. Children are grouped in teams of two or three, and read to each other, thus increasing many times the amount of oral reading practice following silent reading. For this activity, children are grouped according to like ability. Pupil A reads a paragraph (or page) to pupil B and C. Then B reads to A and C, etc. After each person reads orally, the other team mates may ask a question about what was read, thus maintaining good comprehension, or mention one improvement he is making in his oral reading. Another type of follow-up activity is to have the reader, after reading a paragraph, tell everything he can remember about the material he has just read. Those children in the listening roles then tell the reader the things he did not mention about his reading. In this way, the team members not actively engaged in the reading have important listening roles.

The above mentioned technique may be used in different ways. Sometimes, teachers like to have children read to each other purely for enjoyment, not emphasizing comprehension or recall. Oral reading teams work well in social studies, science, the reading of poetry, plays,

limericks, written reports, sharing creative writing, and sharing new knowledge gained from outside reading.

*Team Recall Practice.* In improving comprehension of material read, in any reading task during the school day, teachers may write six to eight questions on the board for the children to read to find the answer. After silent reading, children work in teams of two or three. One team member reads the first question, then the team members discuss the answer, with one team member serving as a secretary to record the answers. Each team member takes turns at reading the questions, all discuss the answer. Disagreements in comprehension of material read are easily resolved by having the team members recheck what they have read. Invariably, when material read is discussed and thought about immediately, comprehension will be more lasting. When all teams have completed the task, one team secretary reads his answers, with the teacher supervising the correction. The other team secretaries check off the correctness of their responses. Thus, the children know immediately whether or not they are correct. Correction takes place when the child's interest is at its peak. Star-gazing and day-dreaming are minimized when pupils must stay awake and active in learning roles. Pupils have added responsibility, not only to themselves, but to the team as well.

*Paired Workbook Practice.* Team effort on workbook-type assignments produce greater enthusiasm and interest when children work in pairs. Two children can share the work. Both read the first question (or paragraph), then both discuss the answer, with one serving as the writer. (The writing of answers may be shared also.) When workbook activities must be done alone, teams of two may share the task of correcting. Pupils exchange papers and correct each other's work, using a teacher's answer booklet for a key. This relieves the teacher for more directed teaching with low achieving youngsters who need more teacher help.

### Team Discussion Techniques

To challenge children in reading activities, close attention must be directed to *output* in reading as opposed to the mass accumulation of *intake*. Some children read a great deal, literally devouring material, yet doing little with it. Others do less reading, but capitalize on what they have read by doing something with it. The latter are much better people for having read. To remember you must think, and the more often you think, the more you remember.

*Critical Thinking Teams.* Opportunities for critical thinking may be enhanced through team learning techniques utilizing teams of two or three. The teacher assigns a selection from supplementary reading material, for example, a selection describing the Seven Wonders of the Ancient World, or after reading material from several sources on this same topic. The teacher assigns the children to groups of three to answer the following critical thinking questions: Which of the seven wonders do you think was seen by the most people? Which do you think cost the most money? Why? Which do you think made the greatest contribution to peace in the world? Why? Which do you think had the most effect on future art projects? Why?

Children, after reading, discuss the questions. Pupil A serves as secretary but all contribute to the discussion. Pupils list their answers, both points of agreement *and* disagreement. After the teams have completed the thinking questions, team secretary reads his answers to the other teams. Other team secretaries read their lists, but only *add* to the answers already given, so that there is a minimum of repetition.

Another possibility for critical thinking may follow the reading of a story. Compare the story to a previously read story using questions to elicit likenesses and differences and to give practice in making critical comparisons. For example, after reading two stories about John Paul Jones and Benjamin Franklin, questions similar to the following may be asked of pupil teams: In what ways were these two men alike? Different? How did they both show that they were adventurous? In what way were their contributions to our country alike?

*Elaborative Thinking Teams.* Elaborative thinking is creative and associational. It draws upon material read as a basis for

thinking activities, yet it goes far beyond the confines of the material read. It lends depth and breadth to reading. Teachers may assign material to be read. After the reading, in three-pupil teams, pupils discuss and answer questions. A typical example might be the following questions after reading about Paul Bunyan. What feats do you think Paul Bunyan would attempt if he were alive today? Suppose Paul Bunyan were a tiny midget instead of a giant. What feats could he have done well? How could a present-day Paul Bunyan help Asia? Africa? South America?

Another type of elaborative thinking is to describe in detail the characters in a story. Children enjoy describing the facial expressions of a character, the clothes he might wear, the way he might walk or talk, or even present a pantomime of another experience the character might have had, not mentioned in the text of the story. Another interesting way of utilizing the thinking skills is to assign a story to be read, and direct the children to read "only as far as page ....." Stop their reading just as they come to the climax in the story, and in teams of three, ask children to discuss the story, and then individually write the concluding actions of the story as they think they could happen. Some children might write colorful, humorous, surprising, of even far-fetched story endings. After this activity, children may read the story ending according to the author, then share their original and creative story endings.

**Every-Pupil Response Techniques**

The every-pupil response technique is designed to remove much of pupil passive participation from practice and drill in skills instruction. Instead of calling on one pupil at a time, the every-pupil response technique allows all children within a group to respond to every question asked by the teacher by various types of response cards. This technique allows for the maximum economy of teacher and pupil time, per child, per classroom minute of instruction.

In reviewing sight vocabulary, each child is given two cards; one with *yes* written on it, the other with *no*. The teacher may review vocabulary by holding up a word (such as ice cream), and saying, "Would you wear this on your head?" Every child holds up the correct card, after reading the word. Children holding up the incorrect card can be corrected immediately. Instead of flash cards, teachers may write a list of words on the board, and pointing to one of the words (cattle) say, "Would you find this on a ranch?"

In the content areas, practice in developing meaning on specialized vocabulary or the recall of facts in social studies and science may be utilized. For example, the teacher points to the word *levees* and says, "Do these help save people's lives?"

This same every-pupil response technique can be used in giving teams of children packs of words to practice in word recognition. One team member drills the other on previously introduced words. In practice on phonics, children may be given small cards with different letters or letter blends written on them. The teacher may ask, "What is the first letter in monkey?" "Hold up the correct card." Every child then holds up the little card with the answer on it. Any child not having the correct answer may be corrected immediately by the teacher, before the wrong answer is fixed in the mind of the child.

Team activities are aids to teaching to individual differences and to developing a balanced reading program for all children. They need to be used wisely when the learning task will be enhanced by their use. The adventures and possibilities for improving children's reading through team learning are many. Children enjoy working together on cooperative endeavors. Discovering and utilizing the possibilities for pupil-team learning can prove challenging to both the teacher and the children.

### c. *Mutual Aid in Learning in the Primary Grades*

HELEN A. MURPHY

Teachers of primary grade children have usually provided some group activities in reading as it is difficult to work with large numbers of children at this age level. Some may have been considered "busy work," because of the difficulty

113.

Vol. 9, 64

# 4. Providing for Individual Differences in Reading

95.

HELEN METZLER



READING is fundamentally an individual skill. When instruction most nearly meets the individual's needs, personal growth is emphasized and the material is subordinate to the reader.

If the child is stimulated to seek reading activities and benefit from them, he will become involved in establishing his own learnings.

If the child is encouraged to "read in depth" he will be able to think about what the author has said to him. He will be able to apply what he has learned to his own life and become a better person because he has read and reacted to the "right book at the right time."

We can provide for individual differences by diagnostic teaching. We can observe how the child plans and how he uses his skills to solve his problems. By means of individual and group discussion we can discover his interests and reactions. We must be sensitive to his unexpressed desires. We must begin "where he is."

The next step is to help the child to select a book and read it by himself. He is guided to choose a book which follows his interests. He learns to evaluate it in the light of his own level of understanding.

During the silent reading, done by himself and at his own pace, the "pressure" to help himself with words comes from the book itself. He tries all the "sounding" knowledge he has and will learn new soundings by discovery, going from the known to the unknown.

The concept of self-selection and pacing brings a new element into the classroom. Group procedures are not eliminated but the number of groups is increased. Groups must be flexible, temporary, and formed for teaching a particular skill or sharing of ideas gained from reading.

Teaching a child to help himself requires time and patience. The secret to success in this accomplishment is the individual teaching that is possible because hours are saved when we do not teach what is already known or what the child is not ready to learn. The teacher explores many aspects of the child's reading by careful use of open end questions which do not attempt to lead toward an obviously desired answer.

Naturally, records must be kept. However, it is not so much how they are kept but how they are used.

In evaluation, this individualized approach seems to offer the greatest opportunity to measure the child's progress in reading. In a detailed study done a few years ago I found that a total of fifty-five different books were profitably used in a one and one-half hour session. How satisfying for both child and teacher!

As a child works either individually or in a group, ways in which he is personally involved with reading are evident. For example, one child's report to the class on *The Nutcracker* by Daniel Walden was in the form of an original film strip planned by himself. We had discussed during our individual conference the most interesting way to involve the class. He used the record player and a student helper played Tchaikovsky's *Nutcracker Suite* as certain dances were shown. This led to a study of Tchaikovsky's other music, his life and to the music and lives of other composers. The children themselves began to compose music and four children began piano lessons. We wrote to Opal Wheeler thanking her for writing so many books for children on the lives of composers. Such interest was shown that we invited the boy's mother, an accomplished musician, as a resource person.

When we have consistently provided for individual differences, an able student will prove that he accepts the challenge to push himself to the limit of his ability. The child who has had a difficult time and a series of failures because materials were too hard, can be encouraged to find books which are comfortable. He will begin to think for himself and realize that his opinion has worth and value for the group. The average child will have a broader reading experience and will develop the ability to evaluate critically. Children will be eager to take books home, join the public library, and share their enjoyment of books with others. Learning through reading becomes a rich experience and reading itself becomes natural and rewarding.

355.

114.



## 2. Day by Day Planning for Success in Reading

MARION MONROE
Seal Beach, California

READING IS SO essential for our lives today that every child should learn to read up to the highest level of his potential. To bring this about is the goal of every teacher of reading.

Although some children are capable of learning to read simply from observing others read and from frequent exposure to books, these children have exceptional aptitudes. They stand out from the group in intelligence, curiosity, self-motivation, cultural background, and in general language abilities. Every teacher of reading can assure you that most children do not "flower into reading" this spontaneously.

*Learning to read is too important to be left to chance.* In order that every child may learn to the best of his abilities, instruction should be systematic, purposeful, planned in the light of the goals to be achieved, and replanned daily in the light of small successes or failures, interests, and the outcome of each day's reading activities.

*Day-by-day planning is necessary for three reasons:*

1. *Reading requires the sequential development of many interrelated skills,* in order for the child to comprehend what he reads and to achieve a growing vocabulary of words and meanings. Learning to read well requires years of practice beginning with simple materials and progressing to difficult text. Long-range goals are divided into goals for each grade level, and the goals for a grade must be divided into the small goals of each day's reading activities.

2. *Groups of children vary in their needs and children vary greatly in abilities within the group.* No matter how carefully a teacher has planned the procedures and goals for a day's work in reading she still needs to adapt methods to reach and interest each child within the group. She can do this best if she keeps track of individual, daily performance. She can then modify the plans for the next day's work in the light of group and individual needs. Teaching reading is creative and experimental. A plan that doesn't work out well needs to be revised and modified. Each daily plan needs to be evaluated in the light of the children's reactions, before the next plan is made.



3. *The content of each selection or story influences the teacher's plans for each day's instruction.* Reading cannot be taught in a vacuum. The children must read *something* in order to learn to read. Each day's story is different. Some stories may be read lightly and swiftly as the child enjoys the action and surprise ending. Other stories need to be read more slowly in order to ponder the deeper meanings and symbolism used by the author. Some stories have a setting like the child's own environment. Other stories are about characters and places that are far from home. Children need to sample many kinds of reading if they are to learn to read well, but each story needs to be analyzed by the teacher in order to plan just how to prepare the children for reading it.

Much has been said about the sequential development of reading skills. Although educators may differ with regard to the methods of instruction and the importance of the various skills, all are agreed that skills should be taught in a logical sequence from the easier to the more difficult levels.

Much has been said, too, about individual differences. How to adjust to the wide differences within a group and how best to group children for instruction are problems that are always with us and require the best thinking of administrators and educators to solve effectively.

Less has been said about how to analyze and present a story as a tool for instruction, yet this practical problem must be met every day by every teacher. This is the point of contact between teachers, pupils, and materials to the end that each child will learn to read as well as possible. This is the place where learning takes place—in the meeting of teacher, child, and book.

It is the purpose of this paper to follow the teacher's thinking processes as she analyzes the story to be read each day and as she plans instruction.

The questions a teacher first asks herself is, *"What is this story about?" "Why was it selected for my pupils to read?" "What will they get out of it?"*

The teacher studies the appropriateness of the story for her group. Will the characters and plot appeal? Is the story problem a familiar one? Are the characters the same age and in the same kind of environment as my pupils are? Is there an episode involving heroism, endurance, ingenuity, unselfishness, or some other quality that will make the story of value to the group? What special features make this story worthwhile?

The next question that confronts the teacher is, *"How will I prepare my pupils for reading this story?"* If the story setting is *different* from the environment of the group the teacher may need to build up information and imagery that will help the children to understand a kind of life different from their own. A city child may need visual aids and discussion of ranch life before he can understand the action of a story set in the western regions. A small-town child may need to be prepared by pictures and imagery for life in a metropolis if he has never seen a skyscraper or ridden a subway train.

Another question is *"How well are my children prepared to read this story from the standpoint of reading skills and reading vocabulary?"* This question will require the teacher to find the new words in the story that may need to be presented and discussed before the reading. If the story is difficult to read or understand, she may need to guide the reading in small units, or read certain passages aloud, to help the children over the rough spots. Some stories may need only a division into one or two parts; other stories can perhaps be read independently all the way through and then discussed after the children have finished the reading. In discussing the meaning of the story the teacher will need to prepare questions for children of different ability levels. To the slower youngsters she may merely ask the *who did what* type of questions. Brighter, superior readers may be guided by questions that require a greater depth of understanding and comprehension.

The teacher needs to analyze the kinds of reading skills that are needed and can be developed in each story. Some stories

356.

are good vehicles for teaching space and time relationships or cause and effect relationships. Some stories have interesting organizations of plot with flashbacks and foreshadowing of future events. The teacher may need to select the specific skills elicited by the nature of the story in planning to teach the appropriate skills of comprehension.

Another question the teacher may ask is, *"Is this story suitable for oral reading?"* If so, she may help prepare the children to read portions or the total story aloud with a discussion of how best to read orally, to portray the emotions of the characters in their actions and conversations. The use of a tape-recorder is especially valuable in motivating oral reading and demonstrating pupils' progress from time to time.

*"What word-recognition skills should be stressed in the light of pupils' difficulties?"* is another question that requires daily study and planning to answer and follow-up successfully. While the teacher is probably following a logical sequence in the development of phonetic and structural analysis in word recognition, she can find the specific points of weakness and the individuals needs for reteaching and reinforcement. Through her notations of how the pupils respond to comprehension questions involving word meaning and how well they succeed in pronouncing words in oral reading, she may discover individual problems. Remedial exercises may then be planned in the light of the difficulties encountered.

It is only by careful *day-by-day* and *story-by-story* planning that a teacher can serve the many needs of all the children in a reading group.

357.

115.



## 2. Individualized Reading: Some Unanswered Questions

COLEMAN MORRISON

IN AN ATTEMPT to determine whether an individualized approach to the teaching of reading can be successfully implemented, the role of the teacher has come under close scrutiny. Many questions have been posed relative to her competency. This concern appears to be justified since it is perfectly logical to assume that when a teacher with inadequate training and ability assumes total responsibility for determining which skills should or should not be developed, it is likely that most children will not acquire a satisfactory proficiency in reading.

Similar concern has been raised concerning the availability of an adequate supply of materials. Here again it must be pointed out that the absence of sufficient instructional literary fare would drastically curtail, if not preclude, the success of even the best intentioned individualized reading program.

On the other hand, if all teachers are adequately prepared and a plethora of appropriate reading materials are available in every classroom, the focus of emphasis shifts from the teacher to the learner.

From the vast number of research studies related to child growth and development that have been made, it has been established that differences among children are vast and their range is broad. Because of these differences it might be expected that some children would profit more from one type of instructional approach than another. Accordingly the determination of the method to be used depends on the degree to which certain internal and external factors have been taken into account. This is no less true in considering the adoption of an individualized approach where the ability of the child to function independently, without excessive reliance on the teacher, is an essential component. With regard to this, one might logically question whether children who have been rewarded for heavy dependence on parental guidance will function successfully in a setting where



the instructional program is primarily learner-initiated rather than adult-directed. Similarly, it might be hypothesized that children exhibiting characteristics of social immaturity, negativism, or withdrawal symptoms would not respond favorably to a program in which they are expected to display the necessary independence, not only in the self-selection process but in subsequent record keeping and reporting. A question also arises regarding the child who is continually rebuked for his exploratory behavior in the home. In this case the inborn characteristics of seeking and self-selection might well become arrested as a result of environmental factors. Can this child succeed in a program of independent activity when such activity is in contradistinction to the manner in which he is expected to function in the home?

The matter of home environment and social class mores prompts still another question. It is apparent from the research that the reading achievement of children coming from the lower socio-economic status is generally inferior to that of children of higher socio-economic status. Included among various explanations for this situation is the assumption that children in many poorer homes are not provided with opportunities to increase their language growth with books, with educational toys, and above all, perhaps, with the stimulation and encouragement to want to learn to read. As a result is it not strongly motivated to want to read and likely that many such children will be even less so when the decision to read or not to read is left in their hands?

In addition to the foregoing, other questions pertaining to the role of the learner need to be raised. Among them: Can the child of less than average intelligence develop sufficient judgment to select reading materials which are most appropriate for his particular needs? Is it justifiable to accept the theory inherent in some individualized reading programs that the child should be taught to read only when he indicates his readiness to do it? Are the benefits which the learner derives from individual attention and instruction equal to those which he might accrue from a program based more extensively on group study, group cooperation, and group learning?

All of these I classify as unanswered questions. By posing them I do not mean to discredit the individualized approach to the teaching of reading. On the contrary I am certain that many children will profit by such instructional techniques. Unfortunately present day research does not provide us with sufficient information to indicate who these children are. Thus in raising some questions concerning individualized reading which come to mind, I am also posing a question relating to the adoption of any instructional program: For which children is this approach desirable and suitable?

358.

110.

### c. *Mutual Aid in Learning in the Primary Grades*

8/. HELEN A. MURPHY

Teachers of primary grade children have usually provided some group activities in reading as it is difficult to work with large numbers of children at this age level. Some may have been considered "busy work," because of the difficulty



involved in providing worthwhile tasks which young children can achieve without the direction of the teacher. At times, able children have been asked to help those less able; at other times, activities have been provided which have allowed some children to go beyond the regular grade work. These efforts have not resulted in adequate provision for all of the children.

Our first approach to the problem was an attempt to discover the kinds of things children can do effectively in groups and the suitability of different size groups for various tasks in all of the subjects in the curriculum. These were group masters studies in which three or four teachers working at the same grade level tried lessons involving total class, groups of ten, five, three, or two. Each person completed at least one lesson in all subject fields using every size group. The report includes a description of the lessons, materials used, an evaluation discussing the things that worked as well as those which didn't, suggestions for varying the techniques, and things to be avoided. Classroom situations varied in a single study, from a class of seventeen children, in a new building with movable furniture, in a priviledged community, to a class of forty-five children in an old building with fixed furniture, in a poor section of a large city. Even though some of the teachers were a bit afraid of the changes which would be needed, all entered into the study. Their reports at the end of the year indicated that they felt the program had been successful and that the children had worked well in groups. For discussion purposes, they reported groups of five had been most successful and for practice exercises groups of two or three had been most satisfactory.

The following year we were planning to evaluate in controlled classroom situations some of these lessons which had been worked out. As the work proceeded, each group felt that they would rather build new lessons, and rather than attempting an evaluation of a general program, special areas or functions were selected to work in. These studies were conducted in grades one, two, and three, and the lessons included applied phonics, word recognition techniques, silent reading exercises and organizational skills. Most of the studies continued for a six-week experimental period. The results in all showed that the groups made significant gains in the areas in which the materials had been developed, as well as on standard tests.

One of these studies,[1] a doctor's thesis, evaluated a series of thirty lessons in word recognition practice. The population included all of the second grade children in an industrial city. Twenty-four classrooms were divided into three groups of eight each. The vocabulary consisted of 289 words common to several basal reading series for the grade. Classification of words into meaningful categories was the general procedure. Children in one experimental group worked together in pairs, sorting words on cards into categories listed on the envelope, and checking their own responses. The children in the second experimental group worked with the same words and categories under the direction of the teacher. Each child was given as many answer cards as there were categories in the lesson. The teacher listed the categories on the board with the corresponding numbers under each title. All of the children responded to all of the new words, and the teacher was able to check the responses immediately. The time for the lessons, approximately ten minutes each, was taken from the regular reading period. The control classes continued with the regular basal reading program. The number of words in a lesson increased from eighteen in lesson one to thirty-six in lesson thirty. Each word was used in several categories, for example, "spring" was used in "An Animal Can Do This," "Can Be Carried in a Paper Bag," "Words That Make You Think of Water," "Words That Make You Think of Weather."

The comparison of scores on the final reading tests in May showed gains of 11.61, 11.26, and 5.56 words for children working in pairs, children working under the direction of the teacher, and the control group respectively. The gains for both experimental groups were significant at the .01 level of confidence while the mean gain of the control group was not statistically significant. These gains of the

[1]Mary A. Bradley, "The Construction and Evaluation of Exercises for Providing Meaningful Practice in Second Grade Reading" (Unpublished Doctor's dissertation, Boston University, School of Education, 1957).

359.

111



experimental groups were equivalent to six months gain according to the test norms and the control group gain equivalent to three months, the actual time of the experimental period.

Each study seemed to favor children working in pairs rather than alone. The materials used in all cases were new, so that there was a question as to whether the change in scores was due to the mutual aid which was being given or to the new materials. In an attempt to keep the group participation as the only experimental variable, a study was undertaken with a group of children in grade one using published materials of basal series in use in the particular communities. Six first grade classrooms, four in one community, and two in the other were involved. In one town, the basal system was J. C. Winston series, and in the other, the Scott-Foresman. Everything was kept as nearly as possible alike in all of the classrooms with the exception of the completion of workbooks. In the experimental groups, children worked together, discussing the answers and checking the results. In the control classes, the children did the workbook exercises alone. As the preprimer was completed, achievement tests which inventoried the vocabulary, were taken. The first group completed the preprimer workbook in October, and the last group in March. As the workbook practice seemed to be designed to develop word recognition with meaning and auditory discrimination of letter sounds a test was constructed to evaluate performance in both of these areas. Of the fifty words introduced in Winston preprimers, and fifty-eight in the Scott Foresman, twenty-nine were common to both. The test included seventy-nine words, the twenty-nine common to both series, twenty-one which occurred only in Winston and twenty-nine which occurred only in Scott Foresman. The reliability of the test was .84. Knowledge of letter sounds was tested by using Part A of the Durrell[1] Test for Hearing Sounds in Words-Grades 1-3. There was a mean difference of 6 words in favor of the group using the team approach in the workbook which was significant at the .01 level of confidence. The mean score on Hearing Sounds in Words was 15.42 for the children working in pairs compared with 13.23 for children working alone. This difference favoring the "team work" was statistically significant at the .01 level of confidence.

Children apparently gain a great deal from each other. Practice lessons using multiple response involving the class working as a unit have been effective. We have been working on lessons involving a total class which include opportunities for the ablest children to gain new knowledge as well as providing practice for the slowest children, thus giving them security in the reading process. One such study involved first and second grade children. The child learning to read in the present reading systems reads about the acting and fun of the children in the storybook. In this study, an attempt was made to present imaginary play situations for active participation on the part of the child, rather than having him passively reading about what others are doing. Two six-week programs, one for the beginning of the first grade to teach the basic preprimer vocabulary and additional words for those able to learn them, and one for the beginning second grade providing review of first grade vocabulary and an enrichment vocabulary for those ready were developed.

The children were asked about places they would like to go, people they would like to be, and things they would like to do. From these suggestions, seven situations for each grade, which seemed to lend themselves to the basic vocabularies, were selected. The first grade vocabulary included 96 preprimer words and 100 enrichment words. The second grade lessons included 204 of the basic first grade list and 107 enrichment words. The main topics were divided into subtitles to allow five groups to participate at the same time in learning a core vocabulary during a week. The lessons were rotated so that every child participated in all activities.

Each class was divided into five heterogeneous groups thus allowing the slow child to work with, and to be aided by the able reader. The aid that the bright child was able to give to others in the group allowed the teacher to move about

[1]Donald D. Durrell. *Improving Reading Instruction*. Boston: World Book Company. 1956, pp. 104-106.

360.

all of the groups rather than to work with just the slow learners. The words on flash cards were given to the children in each group, and there were discussions of possible activities which might take place. One of the situations was A Trip to the Circus. The activities included Getting Ready to Go, Getting the Tickets, At the Circus, and Going Home. For each activity, the teacher gave the group three sets of flash cards, basic words, enrichment words and phrases. Each twenty minute lesson took the place of one reading period. As the child used the word or phrase in a sentence, he showed the card to the group.

The tests were constructed for each grade, one to measure knowledge of the basic words and one for the enrichment vocabulary. The mean score for the basic vocabulary in grade one was 75 words, and for the enrichment, 66, for the second grade 182 basic and 83 enrichment words. Of the ninety-one children in grade one, forty-four mastered 74 or more of the words in the basic list, and fifty-seven mastered 66 or more of the enrichment words. Of the sixty-eight children in the second grade, forty-two mastered 181 or more of the basic words and forty-four mastered 83 or more of the enrichment words.

One evidence that the teachers felt the procedure had been successful was that following the completion of the lessons they continued to use the plan and to build additional lessons. This year they started at the beginning of the year with the program. One teacher reported this past week that she had been using the plan all year, and feels her results have been fine, especially with the slower children, and at the same time, there has been real enrichment for the able children. We want to develop this idea as it seems to be promising.

Some of the advantages which have been evidenced by these studies in addition to increased learning are enthusiasm on the part of the children, and teachers, improvement in listening, development of mutual respect, cooperation within a classroom and a willingness to share ideas. There is no question that primary grade children can work effectively together, and can use successfully, self-directing, self-correcting materials. We need to continue to develop suitable materials and to work out plans for effective class activities as well as for small groups.

117.



## 2. Teaching through Reaching One and All

GLADYS NATCHEZ
City College of the City University of New York

MOST TEACHERS and psychologists know the importance of children succeeding in school. They know how crucial it is that the child be ready in all aspects—physical, intellectual, social and emotional. They work toward establishing good relationships with their pupils. Why then are there still so many children who have difficulty in school?

Undoubtedly the abominations arising from urban living, such as overcrowded conditions, poverty, and cultural alienation, account for much of the trouble. Emotional problems, intellectual deficits, and constitutional factors contribute their share, also. Despite all these components, however, most children start school wanting to learn. How can we help them remain interested and eager?

Perhaps the first thing we can do is keep alive or unearth the eagerness that the very young possess. Looking at toddlers in the park or children in the first years of school, one is struck by the faces—bright-eyed, alert, awestruck, tense, or bewildered as the case may be. The majority show signs of avid curiosity and eagerness to explore. They look wide-eyed at blocks, sand, scissors, paste, pencils, letters, or books. However, the higher up in the grades one goes, the more apathy, callousness, and disinterest are apparent. Those attributes are particularly true of those who fall behind. They have been out of step so long, they have failed so often, that they are lost. They resent their failure at the same time that they are resigned to it. Can we rescue them from this morass? Even more important, can we prevent its occurrence?

Let us examine the way in which children develop this creeping disinterest through the grades. Children are supposed to learn a body of information that educators and others deem necessary and beneficial. If a gap remains between this information and the children themselves, learning often lags. Educators may then select alternate methods and plans; they may try to make learning more pleasant or they may prefer to use strict disciplinary measures in the "child's best interests." Instances can be cited to prove the success or failure of any of these approaches, singly, or in combination. But whenever all children are held to the same standard, some are bound to fail. Is this result inevitable?

If we reject the lock step and truly believe that man is born with a thrust toward growth and self-enhancement,[1] then several implications follow which may prevent failure. First, we assume that, given the freedom, children will choose to know and to grow. We do not have to insist that they fulfill requirements, comply in class, and do our bidding. Instead, we depend on their wish for knowledge and competency. Rather than juggle the system so that the children do what we think best or manipulate lessons to entice them into meaningless exercises, we try to grasp what the child is about, help him extend his horizons in productive ways, and speed him along the road to greater discovery. Right and wrong are usually the least of such learning; the joy of the process replaces stereotyped standards. This method allows children the chance of finding their place and becoming strong from

[1]Association for Supervision and Curriculum Development Yearbook, Arthur Combs, Chairman. *Perceiving, Behaving, Becoming,* Washington, D. C., 1962.

362.

their sense of contribution and collaboration.[2]

Secondly, if those who teach, trust and respect themselves as well as the children, success with minimum difficulty usually occurs. If we trust children, we are confident that they will develop as fully as they can. We expect them to learn and absorb the information around them unless something is radically wrong. We expect them to progress as fast as they can. They need only a reasonable amount of guidance to understand books and other learning material. Children who learn in an atmosphere of trust and respect rarely lose their excitement for learning. When a child becomes enamoured of a story,[3] like the boy Sandy did, and cries: "I can't stop here; I've got to finish it," we know that he is on his way. When we hear another boy say after seeing a title of an article *Colored Snow,*[4] "Oh let me read that; I'm curious about that one," we know that he has found out how reading can expand his world. He's reading for knowledge, not for scores, to please others, or out of fear, but because he's entranced.

Thirdly, if teachers have faith in a child despite his learning difficulty, they can reach him. When a child feels that he is really valued for himself even though he has failed, he begins to experience renewed hope. Through mutual collaboration and understanding, he gains another chance to prove that he can become competent and worthy in his own way.

How can we apply this in a regular classroom? First of all we need to deal with real problems wherever possible. For young children this means making such things as weather equipment that really works or motors than can run. For older children it means dealing with the social, vocational, and personal conflicts that they face. As Roger puts it, this attack allows "the pupil at any level, to be in real contact with the relevant problems of his existence so that he perceives problems and issues which he wishes to resolve."[5] We all know that when we really want to find out, we will stop at nothing. We have all seen youngsters work at something by the hour when they wanted it; we have even seen embittered high school students begin to profit from school when they have their studies integrated with a half-day work program that means something to them.[6] There is no real motivation problem if we direct pupils toward actual rather than trumped up learning experiences. Indeed, under such conditions, we have difficulty getting them to go home after school!

Secondly, it helps if we view the classroom as a place for gathering resources for the pupils—"not as guides, or expectations, or commands, or impositions, or requirements,"[7] but as aids to discovery of useful knowledge and concepts. Besides the books, maps, audio-visual aids, and the like, the teacher himself, along with any specialists or people in the community, would be a primary resource. This approach turns the classroom into a workshop rather than a factory.

Does this sound like idle idealism? Perhaps, but reports indicate that teachers and pupils flourish under such procedures.[8] Not only do they learn but they seem to retain their love of learning. Learning in school comes as naturally as learning to talk.[9] Just as an infant learns through looking, tasting, and exploring; just as he imitates sounds and learns to interpret the world around him, so he will continue to learn as he gets older. And just as no one worried about the number of words that he learned to speak per month, no one worries over the number of books "covered" per year. As long as the children are examining meaningful, constructive concepts in relation to the world, their teachers find that they grasp subject matter and skills with rela-

[2]J. Bruner. "The Growth of the Mind," *American Psychologist,* Dec. 1965, Vol. 20, No. 12, pp. 1007-1017.

[3]In reaction to the story "Treasure Under the Sea" by F. Berres, *et al.* San Francisco, Cal.: Harr Wagner, 1959, p. 22.

[4]C. Stone and C. Grover. *New Practice Readers,* Book D, St. Louis, Mo.: Webster Pub. Co., 1963.

[5]C. Rogers. *On Becoming a Person,* Boston: Houghton Mifflin, 1961, pp. 286-295.

[6]Gladys Natchez. "Are Toughs Teachable?" *Elementary School J.* Vol. 65, No. 4, January 1965, pp. 198-205.

[7]C. Rogers. *On Becoming a Person,* Boston: Houghton Mifflin, 1961, pp. 286-295.

[8]Gladys Natchez. "From Talking to Reading *Teaching,* Scott Foresman, 1962, Part III, pp. 146-190.

[9]Gladys Natchez. "From Talking to Reading Without Really Trying," Speech delivered at Manhattanville College for the Montessori Training Program, 1964.

tive ease. Of course if some children display deviate development and cannot talk or learn in the usual manner, they are exceptions that need special investigation. But on the whole, learning should proceed as easily and naturally as language development.

If this is true, why do so many of us raise our eyebrows when we think of running schools this way? Why is it that we feel that teachers must follow manuals, lesson plans, and syllabi exclusively? Why do we consider it all important to cover the curriculum in entirety and adhere to the best methods? In one school district, for example, where a teacher trusted and respected his pupils' ability to think and work for themselves, many members of the community became outraged because some pupils began questioning current government foreign policy. Even though the teacher wished them only to gather the facts and draw their own conclusions (he allowed no irresponsible propaganda), parents were up in arms. It takes courage to allow people to hold their own views and to grow according to their own precepts. Sometimes we do not have such courage.

Perhaps, also, it is because we are afraid to trust ourselves and our children without adhering to a master plan. Perhaps we think that education will become too haphazard. After all, how can children know what is good for them? Can we allow them to choose what they learn?

Ironically enough, however, children *do* choose what they learn whether we are aware of it or not. Although they do not always learn what we plan for them, they learn. When school is meaningless for them, perhaps they learn that it is useless to try, that it is dangerous to grow up, that it is easier not to try than to try and fail. Or they may learn that it is better to be first among the lowly or that they are not good enough and do not deserve success.

If in the end they are convinced of their worthlessness, if they become too fearful or too angry to hear or see what is offered, they become alienated from anything connected with school.

Can we still renew love of learning when this attitude occurs? It depends. It depends on how much we believe that we can. It depends on how much faith we have in children's innate surge to continue their growth despite all sorts of interfering conditions. If we feel hopeless, the children will feel hopeless, too. But if we are willing to try again, they usually respond to our optimism.

The pupils who attend the City College Educational Clinic frequently provide encouraging examples of such growth. They come to us discouraged and defeated. Yet they often react dramatically to reading instruction which raises their hopes about themselves and makes them feel worthy. Their tutors, who are graduate students being trained in the college remedial reading program, are encouraged to help them gain genuine pleasure from books and gather information for its intrinsic value. This goal is not always easy. We find that the more we make subject matter come alive through historical novels, biographies, folk tales, simplified classics, experiments, magic, and other meaningful material, the more engrossed the children become. When they see how their lives relate to the reading matter, they work diligently and struggle harder to overcome their handicaps. When they recognize that despite their poor achievement we consider them worthwhile individuals, when they realize that we expect them to make progress, they perk up. As the tutors learn to look at the children in a new light and as they begin to understand and respect them, the tutors change too.

One morning, for instance, a tutor was working with a fifteen-year-old Chinese American youngster reading at sixth-grade level. He had just completed a comprehension exercise and his tutor was questioning him on one response which must have been in error. When the supervisor walked in, she did not know the content of the exercise. All she heard was the tutor saying, "Do you leave the door of your house open when you go out?"

"Yes," he answered.

"You *do?*" was the astonished rejoinder. The supervisor interrupted at this point asking the youth whether he lived in a house or an apartment. (He travelled from the Bronx to our Clinic at 135th Street in Manhattan.) To their amaze-

ment he said, "A house." He went on to say that there was quite a colony of homes in the area and that many people left their doors open. He claimed that he locked only his closet door to prevent his brother from messing up his models and property.

A discussion ensued, and William listened to the difference between answering questions purely on the basis of one's own knowledge and answering with regard to the information offered in an article. His answer was accepted as appropriate from the former point of view. Then he thought about what the author had stated and realized the difference.

Had we just treated his answer as incorrect, we would have neglected understanding why and how the boy approached the problem the way he did. Had we doubted the validity of his own statement, we would have shown that we didn't believe him, that we had little respect for his opinion, and that he had better learn from us what was right. Worse, he would have learned once more that he could not choose answers correctly, that he was inept and stupid.

Another child was reading an exercise[10] which described how to pluck the inside tine of a fork with a knife. It stated that the fork will not "sing" when it is plucked in the air. Only when the fork handle is placed upright on a table will it "sing." Did you know that? Well, Jeanne, a fifth grader at the Clinic didn't. And she didn't believe it either. So when one multiple choice item in the exercise stated: "Making a fork sing could be called

a) a joke
b) magic
c) an experiment
d) a trick

[10]SRA Reading Laboratory, Don Parker, High School Edition, Science Research Associates, Chicago, Ill., 1957, Olive, No. 11.

Jeanne chose "d) a trick." She explained that of course it was a trick; she didn't care what the answer said. The tutor asked if she would like to find out for herself. Then she could notify the company if the key was wrong. She agreed with enthusiasm. When she followed the directions, both she and her tutor were delighted with the result. They found out that the fork made only a dead noise when in the air. Not until it was held upright on a table did it "sing."

"It *is* an experiment, not just a trick!" exclaimed Jeanne, her eyes glowing. She learned the best way of checking an answer. The tutor did not have to urge her to go back to the material and read it again. She did not have to look for her mistake. She not only recognized her error but she learned a bit of information that she treasured. She has since told us that she showed this "experiment" to all her family and friends.

Naturally, we cannot always proceed the way that we did in these examples. There may not be time or we may not have the facilities. But, on the whole, we find that we are apt to be most successful when we appeal to children's innate wish to find out and to improve and when we allow them the freedom to remain inquisitive and to expand. They show us day after day that given the slightest hope they will put forth additional effort and try again.

In whatever way we can, we try to help the child evolve rather than stifle him by pushing him into a preconceived mold. It is true that we often make compromises; it is true that we cannot always allow as much freedom as we would like because we ourselves and our situation are limited. We often settle for less than we wish, but we keep seeking ways to crystallize the child's unique and special possibilities and to nurture his feelings of self esteem.

365.

Vol. 9, 64

118.

# SEQUENCE IX
# DEVELOPING LIFETIME READING HABITS

## A. ELEMENTARY SCHOOL

### 1. Some Techniques for Building Lifetime Reading Habits

HELEN W. PAINTER

SOME YEARS ago Robert Frost wrote the well-known line: "The whole reason for going to school is to get the impression fixed for life that there is a book side to everything." Perhaps in this one sentence Frost has expressed succinctly the goal of teachers, for surely we are trying to promote lifetime reading habits on the part of all children. The past decade has seen a book explosion. Studies are indicating that children today *are* reading.

The topic of lifetime reading habits involves many aspects, four basic ones of which need mention before listing some techniques to use in developing such habits.

1. Reading ability is necessary to a reading habit. A child must read fairly well if he is to develop the habit of reading.

2. A child's attitudes and interests will influence his reading. Teachers must study the research on the interests of children. As books are matched to interests and needs, attitudes toward reading are influenced favorably.

3. Closely related to the foregoing is the matter of different social and reading environments. William S. Gray, speaking of the wide diversity among children reared in different environments, wrote that "we may rightly wonder if desirable reading interests and habits can be developed on the part of all."[1]

4. Are we as teachers somewhat prejudiced in our evaluation of the importance of lifetime reading habits? *We* are convinced of the value of reading. Not all people are. They have a greater interest in something other than books.

Following these four basic points, here are seven suggestions of techniques for teachers to use in promoting lifetime reading habits.

1. The teacher herself must read and let children know that she does. In the March 1964 *Reading Teacher* Ralph Brown points out that there is evidence that only teachers who themselves read can develop in students habits and interests conducive to wide reading. Our own interest in reading communicates itself to the child.

2. A teacher must know the field of children's literature. Otherwise, how can she suggest a book to that certain child with a particular need? How can she order books for her classroom library? How can she lead children to develop the habit of reading selectively? Teachers must be alert to the book lists available, to the magazines and newspapers reviewing current literature, and to the award books.

3. Read aloud to the children but read well. Good literature read by the teacher leads to interest in books. Poetry, especially, and some prose material seem to be better appreciated when read aloud by the teacher.

4. Make books readily available to the children. Surely teachers need to encourage the library habit. However, ownership of a favorite book is to be desired so that a child may turn to it again and again. Many books are expensive. Teachers must keep up-to-date with their knowledge of the many children's book clubs where an astonishingly large number of books of good literature is available.

5. Use a variety of audio-visual means to sell the idea of reading. Television, films, filmstrips, recordings, tapes, slides, and puppets are some of the sources available to the teacher who looks for them as aids to entice children to books.

6. Use pertinent facts about authors or their writing. Often we can lead to writers through interesting details about their lives, how they write, or episodes behind their books. Above all, teachers should seize the opportunity to hear these talented people. Your accounts of seeing and hearing authors may be just what is needed to lead the child to books.

7. Finally, we must empasize repeatedly the enjoyment of reading. Children must have books at or below their reading level to encourage them in wide reading. Sometimes, if a child is eager to do so, let him go on to a little harder material. Periodically, we must check on rate, skills, and the like. However, let us have other times when children just read.

In summary, the resourceful teacher devises her techniques for building lifetime reading habits in view of herself and of her individual pupils.

[1]William S. Gray. "Sociological Aspects," in Helen M. Robinson, ed., *Developing Permanent Interest in Reading*, Supplementary Educational Monographs, No. 84, Chicago, University of Chicago Press, Dec. 1956, pp. 14-15.



366.

119.

Vol.7, 62

## 10. Bloomfield-Barnhart—*Let's Read*

ROBERT POOLEY

Nearly twenty-five years ago Dr. Leonard Bloomfield, an internationally renowned linguist, set down a method for teaching reading. He did so because he felt that the methods then in use failed to make use of scientific information about English very well known to linguists, but little known or ignored by those who educated children. By his method his son learned to read, as did also the son of his friend, the lexicographer Clarence Barnhart. So also did other children, whose parents heard of the method and used it. Encouraged by the successes and larger scale success in private school classrooms, Bloomfield and Barnhart attempted to publish the method to introduce it to educators. Neither publishers nor educators were interested, despite repeated efforts. At long last, through the aid of a foundation and the interest of an editor of an educational press, himself a student of Dr. Bloomfield's, the work was published in 1961 under the title of *Let's Read*. It is my privilege to present briefly the essentials of the Bloomfield-Barnhart method, and to ask specialists in reading to give it such trial as sound educational research warrants.

Bloomfield begins with the axiom that reading is the relation of printed (or written) words to speech. From this axiom it follows that the foundation of successful reading is the command of the letters that form words so that words may become speech as quickly as possible. English, despite its variations and inconsistencies, is an alphabetic language in its written form. It is sound to start with this principle, even though at a later time some of the non-alphabetic variations of English will have to be taught. No matter what method of early reading is used, children learn assisted or unassisted to read alphabetically. Without this learning, the tremendous growth in vocabulary made by children would be impossible except for those gifted with photographic memories. This alphabetic association, which in word-reading is a by-product, Bloomfield makes central to his system.

Since children always learn to read aloud and only after some years bypass active vocalization, the primary essentials of reading are *letters* and *phonemes*. The Bloomfield approach sets up a basic relationship between these two elements so that the child can quickly and easily read for himself an ever-expanding vocabulary resting upon the association of letters and phonemes.

This attention to the sounds of letters may falsely be called phonics. Bloomfield



367.

specifically denies that his system employs phonics. Phonics, he says, is presented as though the child were learning to speak. If he cannot speak, he is not ready to read. Furthermore, phonic methods isolate speech sounds, whereas phonetic methods always treat sounds in combinations. But the application of phonetic principles to the creation of a reading method does not imply the teaching of phonetics to children, but only the use of phonetics to establish valid letter-phoneme relationships. This system begins with regular spellings, to teach the child to respond vocally to the sight of letters. Later he is trained to respond correctly to irregular spellings. Always he must respond vocally to what he sees in print or writing.

The essence of the Bloomfield approach is concentrated in these assertions: The grasp of content in reading rests upon an understanding of the words used in their combinations. What is understood in hearing is understood in reading. The child must focus upon converting letters to speech. Content must wait upon his having enough practice to be able to reflect on the content while producing the sounds. The effort to make him realize content from the sight of whole words is the underlying fallacy of current reading methods. Satisfaction to the beginning reader is not in the sense (content) of the words, but in the power to pronounce them. There is as much reward in reading *nin* as in reading *pin* or *din*. The child succeeds in these pronunciations, and this success is ample motivation for perseverence.

With these basic principles in mind, let us now follow the steps in the Bloomfield-Barnhart reading method:

1. Teach the child the letters of the alphabet in their normal order, and have him name them. Begin with capital letters, and make the recognition and naming an interesting game. Some two-year-olds can do this easily; most three-year-olds will find it easy. When the capital letters can be correctly named, move to the lower-case or small letters, teaching them in association with the matching capitals. The child must be familiar with all the letters, both capital and small, before any reading is begun.

2. It is extremely important at this stage to direct movement from left to right in all materials presented to the child, even in the illustrations used. Never reverse direction in pointing to letters, so that movement from left to right becomes an ingrained habit.

3. Establish at the earliest approach to reading that *letter equals speech sound to be spoken,* the sound being that found in normal letter groups forming words, never sounds in isolation from words. At the outset each letter is used with only one phonetic value, and silent letters are avoided. Two-letter and three-letter words are used at the beginning. Because of children's familiarity with and appreciation of rhyme, it is best to group the words by terminal sounds, *e.g., bat, cat, fat,* etc.

4. Each word is spelled and then pronounced. The goal is to distinguish the change in letter and sound from word to word. Nothing should deflect the child's attention from pronouncing each word correctly. No connection with meaning is stimulated, except as the child himself may be aware that he is pronouncing a word that he knows. No grouping of words for meaning is used at this beginning stage.

5. Because making discriminations of sight and sound is difficult, early lessons must be kept short. It is important that the child succeed, not be pressed beyond his competence.

6. Nonsense letter groups are the test of the child's success in reading. Moreover, combinations of letters in short form without sense become words in longer combinations: *e.g.,* the child will use *han* in *handle, mag* in *magnet, Jan* in *January.*

7. Continue the process of pronouncing letter combinations with no association with meaning for a considerable time, or until the child can pronounce most short letter combinations without help.

8. Assist the child to make such transitions as are involved in moving from *lab* to *slab, sag* to *slag, cat* to *scat,* etc.

9. Long association with "regular" spellings is required before progression is made to the commonest "irregular" consonant words, and later to the commonest "irregular" vowel words.

10. Meaning develops from increasing ease in pronunciation. When the child can pronounce letter combinations with sufficient ease to hear what he is reading he will become aware that he is saying words that he knows. In class groups he will hear what other children pronounce and will recognize the sounds as words. In time he will be amused to pronounce combinations of letter-groups that make sense and will increasingly relate without effort meanings to the words he is reading. Reading vocabulary develops from his power to read new words unaided, or with very little aid. To develop independent reading power is the goal of the Bloomfield-Barnhart method.

No claim is made by the authors or by this reviewer that the method here briefly outlined is infallible, or that it is superior to other methods of reading. It is presented rather as a method founded upon new principles, and is worthy of examination, trial, and unbiased evaluation. For such trial and evaluation the authors and I present the book to specialists in reading for scholarly consideration.

Several uses of the book *Let's Read* seem apparent. Undoubtedly it will continue to be used as a method for parents to teach a child to read in his home. The authors have been careful to indicate the signs of readiness for such instruction, and to warn against advancing the child beyond his powers. The book in its present form will also be used for foundational reading in small private schools, in which application it has already shown success.

Experimentation with the method for aiding retarded readers in remedial classes offers interesting possibilities. It is not unreasonable to suppose that the child who is frustrated by one approach to reading may make a fresh start and gain confidence with another.

Finally, and most important, the book should challenge large-scale, carefully prepared and properly controlled reading research for comparison of the Bloomfield system with traditional systems. Teachers for the Bloomfield method must be informed and willing volunteers, adequately trained to use the system as directed. The results of such an experiment, or series of investigations, can determine with assurance the value to the teaching of reading in the Bloomfield-Barnhart method.

120.



is made of responses which is unfortunate as one can advance the paper by barely touching the correct button and then depressing and holding an incorrect button. An elimination of this characteristic of the machine and the development of better programs would add greatly to its usefulness for reading teachers.

*The First Steps in Reading,* a multiple choice program, requires the student to make his selection and then advance the paper in the Min Max machine to expose the correct choice found directly under each item. Visual discrimination of large capital letters is followed by instruction on **AT** and **AN**; H and **UG**; **P, S, F, M, IN,** and **ING,** and various combinations of all single letters as initial consonants in combination with all endings taught; 24 "picturable" words; structure words such as **the** and **and**; also **up, to, on, after, is, was, run, too, are, were,** more nouns, and plurals; and lastly **had** and **has.** Many of the words taught show similarities in beginning consonants and word endings. A post test includes an isolated word list and nonsense sentences.

The program has not yet been used in schools, but some data have suggested that the program takes about 13 hours to complete and that students show an increase in word knowledge of about 70 per cent from pre- to post test.

*Programed Reading* approaches initial reading instruction with a detailed teacher's guide to classroom instruction. The pupils' programed primers are introduced when students have learned to recognize and print the letters of the alphabet and have learned the sounds of five letters. One written response per page is required and the confirmation, found in the margin to the left of each item, is covered by the child until after he has responded to the item itself. Thus the prerequisites for the reading program are taught: **a, f, m, n, p, t, th,** and **I**; the words **yes** and **no**; a discrimination between the words **ant, man, mat**; and the sentence, **I am an ant.** The reading material progresses through 25 consonants, 17 vowel sounds, 7 suffixes, and 11 sight words. In all but the sight words, the letters have constant sound values. The vowel letters are given their long values and various spellings are introduced systematically in the second



series. Included are double vowels, vowel combinations, soft values for g and c, suffixes, silent consonants, and other irregular subclasses.

The publisher's validation data indicate that first graders trained with this program achieved a grade level of 3.8 on standardized reading achievement tests; that there were no "non-readers"; that the error rate throughout the program was about 3 per cent; and that the post test error rate averaged 5 per cent. No indication as to how much or what kind of teaching took place in addition to the program is given.

If you face the practical problem of evaluating the available programs, an article by James Holland (*Teachers College Record,* 1961, p. 56) will be helpful and a request for validation data from the publishers is in order. Look at each program being considered and first decide whether or not the final test is representative of exactly that which you want your students to learn. If so, try the program out on a small sample of children. This is not to suggest a controlled study, but rather a trial for your own benefit to determine where the program is the most effective, where it is the least effective, and whether or not it does what it purports to do. A report to the publishers on the results of instruction will provide them with a valid means of improving their programs and should provide you with a better understanding of the components of reading instruction.


REFERENCES

Brogran, Andrews, and Hotchkiss, Emily. *Dialog 1,* an aural-oral course in phonics. Chester, Conn.: Chester Electronics Laboratories, Inc., 1963.

Buchanan, Cynthia Dee. *Programed Reading.* New York: McGraw-Hill, 1963.

Fry, Edward. "Programed Instruction in Reading," *The Reading Teacher,* XVII (March, 1964), 453-459.

Holland, James G. "Evaluating Teaching Machines and Programs," *Teacher's College Record,* LXIII (1961), 56-65.

Honor Products. *Homonyms.* Cambridge, Massachusetts: Bolt Beranek and Newmann, 1963.

Teaching Machines Inc. First Steps in Reading. New York: TMI-Grolier, 1963.


vol. 9, '64

## 4. Programed Reading in the Elementary Grades

HELEN M. POPP

THIS PAPER gives an abridged presentation of additional information on four of the programs in elementary reading reported by Fry (1964).

*Dialog 1* consists of 124 lessons which introduce 62 phonic elements. Taped aural stimuli and workbooks which present pictures and written text are used and the students are required to produce written and oral responses which are verified. No validation data is presently available.

An Honor Teaching Machine program of homonyms uses prompts which are mostly mnemonic, but also includes the deletion of words in rhymes. The program is presented in a small machine and the student responds by pressing one of four buttons on the face of the machine. If he has made a correct choice, the paper advances. It is also often advanced after an incorrect choice and the student is expected to read that he was incorrect. No record

369.

121.

The Individualized Rdg. Pgm.: A guide to classroom Teachers: IRA Conf. Proc.s, Vol. 11, Pa rt 3, 1966. Lyman C. Hunt Jr., (Ed.),

RUSSELL R. RAMSEY

HARVEY SCHOOL
MASSILLON, OHIO

# 9. Developing and Supervising Individualized Reading on a School-Wide Basis

THE INDIVIDUALIZED Reading Program (IRP) at Harvey School, Massillon, Ohio, had its beginning late in the summer of 1962. Today it has advanced to the point where all pupils in the school are receiving some form of individualized reading instruction. Where once principal and faculty were learning about IRP, they are now in demand as teachers and consultants to others who are seeking information about this approach to reading instruction. Because of their accomplishments, staff members have been receiving teachers from other school systems for observations and accepting invitations to be workshop leaders, while the principal has been invited to be a panel member at the International Reading Association Convention. As the 1965-66 year ends, much progress has been made; yet more remains to be accomplished.

## Improvement of Reading Instruction Commences

An administrative practice of the Massillon Public School System is to assess all school personnel sometime during each school year. Elementary school principals are evaluated on the following professional activities:

1] instructional leadership,
2] pupil personnel services,
3] public relations,
4] clerical records,
5] plant and equipment, and
6] administrative duties.

Through this annual evaluation in August, 1962, Dr. Virgil Blanke, the superintendent of schools, made it apparent that he considered the



370.

major function of the elementary school principal to be the improvement of classroom reading instruction. This particular principal was in agreement with many educators who contend that teaching reading needs constant and continued attention. On this basis a decision was made to launch a concerted effort in an attempt to improve the classroom reading instruction at Harvey School. This idea was conveyed to staff members during the first fall meeting of the 1962 school year.

## Evaluation of Current Instructions

Two conditions are needed before a program of reading improvement can begin to function on a school-wide basis—discomfort and absence of inertia. First the staff must be disturbed about current pupil performance in reading. Thus the first task was to take stock of the reading program of the school. This task was accomplished through a series of faculty meetings. The reading program was evaluated in relation to goals previously established within the school. The problem was to determine the extent to which goals were being met, or not being met, and to establish a plan to close the gap between plans and practice. Fortunately the staff was operating on a premise that all members should work together to recognize common goals and to attain similar values; each staff member, nevertheless, was encouraged to find his or her own solution to the problems common to the school in the area of reading.

As a result of this school-wide evaluation, several major concerns were recognized:

1] To improve the reading skills of our students (sight recognition, work-study skills, silent reading efficiency, oral reading fluency).
2] To meet better the individual needs of our students (the staff had become aware that setting standards for individuals instead of class groups as a whole was a priority need).
3] To encourage students to become more independent in their reading (the teachers agreed that each child should be given a chance to read widely in a variety of books and printed materials and be allowed to explore the richness of ideas found in books).

Consequently to improve the Harvey reading program it was necessary to obtain quantities of varied materials and to use new teaching patterns designed to meet the individual interests and needs of the students. Without question, the staff of Harvey School was concerned with the program of reading instruction and was ready to do something about it.

371.

***Beginning to Change*** A "nudge" or push is needed to overcome inertia and get new plans underway. This "nudge" may come from many sources. In some schools it may come from the superintendent, as it did in the case of Harvey School. In some cases the "nudge" may come from the principal or, in IRP, the classroom teacher herself may initiate the change. Actually, a combination of factors is usually present and it could be the classroom teachers, principals, or the school administrators who set the program in motion.

A critical point had been reached at Harvey School and to improve the reading program real changes had to be made—changes in instructional materials, classroom structure and organization, and in patterns of teaching reading. Various steps were taken to meet these needs. The reading supervisor of the Massillon Public Schools took a leadership role in several meetings; staff members attended a reading workshop; an outside consultant conducted a one-day workshop for Harvey staff members; and a series of IRP films obtained from the Pennsylvania State University was shown. In addition, regularly scheduled staff meetings were devoted to study of the IRP; teachers participated in university reading research projects and took part in system-wide in-service activities.

***Staff Preparation*** In the spring of 1963, Mrs. Kathryn Steiert, then reading supervisor in the Massillon Public Schools, attended a staff meeting to direct a discussion concerning individualized reading. During the discussion excellent interaction occurred among the teachers concerning the nature of the reading process. Later in the year Mrs. Steiert described methods of teaching reading at a meeting of the Harvey School Parent Teacher Association.

As a result of these initial meetings this school principal recognized his responsibility to become more knowledgeable in the management and operation of an IRP on a school-wide basis. Such an opportunity was afforded when a workshop on individualized reading was conducted at the University of Akron in the summer of 1963. In addition to the principal, several members of the staff attended part of the two-week program.

The workshop proved very valuable for several reasons. Through interaction, subsequent to attendance, staff members obtained a greater insight into the reading process. The staff became aware of the class organization and teaching procedures needed to give pupils greater independence in reading. In addition, several outside resources also

372.

became available for further in-service work with the Harvey staff members. Mrs. Anne Petry was one good example.

Mrs. Petry, of the Akron Public Schools and a member of the Akron University reading workshop staff, was invited to Harvey just prior to the opening of school to conduct a one-day workshop for all staff members. Her program was entitled "Creating Enthusiasm for Learning Through Individualized Reading." She did create enthusiasm; her dynamic presentation provided motivation for launching the new school year.

In order to help the teachers over any rough spots which might be encountered as the school year progressed, the idea of staff interaction was continued through regularly scheduled staff meetings. A series of films concerned with individualized reading served as the background for the meetings. These films were produced by Dr. Lyman C. Hunt at the Pennsylvania State University as part of an extensive research project on individualized reading. They were filmed from a series of live TV programs which were the central feature of the research project, "An Experimental Project Appraising the Effectiveness of a Program Series on Reading Instruction Using Open Circuit Television" (*1*). Each film presents an actual demonstration of individualized reading instruction by a teacher working with a small number of children in the TV studio-classroom setting.

The momentum necessary to maintain and give continuity to an in-service program of this type was aided by several projects involving the entire Massillon School System; Harvey School was but a part. During the 1964-1965 school year, twenty first grade teachers of the Massillon Public Schools participated in a research study under the direction of Dr. Kenneth Smith, of the Department of Education at Kent State University.

The study was a comparison of three approaches to teaching reading in the first grade. At Harvey School two teachers used the completely individualized approach while a third used a combination basal reader and individualized approach. For the two teachers using IRP an initial sight vocabulary was taught through experience charts while records of skill instruction were maintained through the use of the Barbe Skills Checklist.

Although the results of the study have not been published, the impact on the first-grade reading program at Harvey School has been pronounced. Many of the changes in instructional practice undertaken for

the study have been maintained during this school year. As a consequence, the first grade reading program has definitely moved in the direction of individualized instruction.

During the present school year (1965-1966) several first-grade teachers in the Massillon Public School System are participating in a study under the leadership of Dr. Lyman Hunt of the University of Akron (2). The study is designed to examine teacher attitude and performance and pupil attitude and performance when first-grade teachers vary reading instruction with regard to numbers of books used in the reading program. Two of the Harvey School first grade teachers are participating in this study. The very act of participating in research studies stimulates learning and change. This stimulation occurs not only for the teachers directly concerned but for other teachers and the principal as well.

***System-Wide In-Service Activities*** A series of meetings on individualized reading for teachers of the Massillon Public School System was carried out over a ten-week period during the spring of 1966. The Harvey School teachers who attended this workshop were presented a basis for self evaluation with regard to program development. Through the discussion of many important issues in reading, individual teachers were given an opportunity not only to reflect and to reconsider but were given the tools to add a firmer structure to the framework of their evolving reading instruction. New and emerging reading programs, classroom organization, the teacher-pupil conference, the language-experience approach, and creative writing were among the topics explored through the workshop.

***Program Implementation*** Teachers were beginning to change. In-service activities had provided the necessary "nudge." However, developing and building a substantially different kind of reading program takes time and continuous effort. Individualized reading is a conceptualization for teaching and not a specific methodology or procedure. It is geared to the individuality of the teacher. The responsibility for instruction lies with her and not with the manual. Because teachers can be themselves, youngsters can learn to be themselves and to be natural readers. The following review of grade-level programs at Harvey School clearly indicates teacher individuality has been an important factor in the attempt to improve reading instruction.

First Grade—Both teachers are using a completely individualized ap-

proach. Experience charts play an important role in building a sight vocabulary during the beginning weeks of the year. Students are given the choice of selecting the books they wish to read. Individual conferences with students are used by both teachers to discuss the materials read. An outstanding feature of the first grade program is the great number of books read by the students. A recent addition is a listening laboratory (tape recorders and ear phones) which has been used for two years. An innovation this year has been the use of a Show 'n' Tell Phono-Viewer.

Second Grade—The second grade teachers are utilizing a variety of reading materials in order to individualize instruction. Basal readers from several companies are used as a part of the program. A Science Research Associates Reading Laboratory and the appropriate Readers Digest Skill Builders are used in an effort to meet the individual needs of the class members. An excellent collection of supplemental books is used extensively by the teachers to enrich their reading program. Creative writing is enjoyed by the students and art work has become a very important outlet for reporting on the books read.

Third Grade—The third grade program is a combination of the Ginn Basal Reader, an SRA Reading Laboratory, and individualized reading. A typical weekly schedule for six or seven reading periods would be one or two days of basal reader, one or two days of SRA Reading Laboratory, and two or three days of individualized reading. Classroom libraries and the school library serve as the source of the books needed for individualized reading. Conferences with the students have an important place in helping the teachers evaluate the reading being done in their classroom. Creative writing is an integral part of the class activity. Students are writing creatively, using as a background the many ideas which they have discovered while exploring books.

Fourth Grade and Fifth Grade—An abundance of materials is very important on this level to meet the wide range of reading abilities and interests found within the classroom. Along with the Ginn Basal Reader, The Scott Foresman Readers and the Harr Wagner supplementary series are used. An SRA Reading Laboratory and its accompanying Pilot Library play an important part in allowing the students to read materials on their reading level and to help them advance at their own rate. An outstanding example of students making judgments

about books they have read is the Junior Great Books Club. Four discussion groups are organized to take part in this program. The groups meet bi-weekly to discuss the book selection they have read.

Sixth Grade—An SRA Pilot Library has proved very beneficial to the sixth-grade program. While reading the short selections, students have become interested in various topics. Consequently, they have read other books and materials on these topics and have also employed research techniques in the school library and the Massillon City Library to gain more information. This year to aid in skills work a MacMillan Spectrum of Skills has been used. Teacher-student conferences are being used extensively by the sixth grade teachers in an effort to bring the students and their books closer together. Student evaluation is made easier for the teachers by a system of record keeping. A skills list and a record of the books read are the major part of this system (*3*).

## Summary

The responsibility of the principal does not end with the implementation of a new program. Growth must be continuously stimulated. The principal must give support and encouragement to all staff members and he must give realistic and practical help if a program is to continue to improve. However, in the final analysis, success will depend on the skill of the teachers, their understanding of the reading process, and the continued supervision and support of the school principal. IRP on a school-wide basis is truly a team effort.

## References

1. Hunt, Lyman C., Jr. "An Experimental Project Appraising the Effectiveness of a Program Series on Reading Instruction Using Open-Circuit Television." A research report distributed through the Library of Congress repository system. March 1961, p. 116. *From the Bookshelf. Twenty Kinescopes on Individualized Reading Instruction.* University Park, Pennsylvania: The Reading Center, The Pennsylvania State University, 1960. (Available from the Audio-Visual Center—Pennsylvania State University)
2. Hunt, Lyman. *Teachers and Pupil Attitude and Performance in Relation to Number of Books Used in First Grade Reading.* Research Study in Progress. Akron, Ohio: The University of Akron, 1965.
3. Ramsey, Russell R. A Report on the Reading Program of Harvey School. Massillon, Ohio: Board of Education of the Massillon Public Schools, 1964.

376.

122

Vol. 7, 62

# 13. An Evaluation of Three Methods of Teaching Sixth Grade Reading

151.

WALLACE RAMSEY

Providing for individual differences in reading ability continues to be a major problem in elementary education. It becomes intensified in intermediate grades because the variation in reading ability becomes even greater than it is in lower grades.

Many plans of organization, or methods of instruction, have been devised to solve the problem. Such plans range from individualized teaching to homogeneous grouping of the entire school population.

A perusal of the professional literature is likely to convince one that the three major plans being tried in this country are: (1) in-class ability grouping, (2) cross-class (or cross-grade) grouping—popularly known as the *Joplin Plan,* and (3) individualized reading.

During the school year 1960-61 seven



sixth-grade teachers in the Lee's Summit, Missouri, Schools, under the leadership of their assistant superintendent, Dr. W. J. Underwood, participated in an experiment to gather evidence concerning the relative merits of the three plans listed above.

The Iowa Tests of Basic Skills were administered as part of the school system's regular testing program in September, 1960, at the start of the experiment, and again in September, 1961. The test results were used by teachers as one criterion for grouping the children in the five classrooms which did not use individualized reading. The reading gains registered on the tests were used as indications of growth in reading ability of all of the children in the experiment.

The 223 children in the experiment had received similar reading instruction in the first five years of school — instruction utilizing basic readers and workbooks. Teachers had used in-class ability grouping to care for individual differences. Thirty-nine of the children in the ability grouped classes had had their basal reader instruction supplemented in grades 1-3 with all the lessons in phonics presented in *Phonetic Keys to Reading,* published by The Economy Company. All had had access to ample classroom libraries and had been encouraged to do lots of reading. While there was a variation in socio-economic level in each class, the majority of the children were from upper-middle-class homes.

The number of children in the three groups, and the mean intelligence quotient of each group (as determined by the administration of the long form of the California Test of Mental Maturity) were as follows:

| | No. | I.Q. |
|---|---|---|
| Individualized | 70 | 114.0 |
| In-class grouped | 103 | 115.5 |
| Cross-class grouped | 50 | 114.1 |

In no case was the difference in average I.Q. of the three groups found to be statistically significant at the five per cent level.

## Description of the Programs

In the two classrooms where individualized instruction was given there were three types of reading activity. For the first six weeks of the year training in reading skills was given by utilizing the *Reading for Meaning* series published by the Lippincott Company. Thereafter, children engaged in two types of reading activity during the reading period:

(1) free reading in books selected by the children.
(2) individual reading and completion of skill building exercises in appropriate selections of the SRA Reading Laboratory.

Each teacher made special efforts to encourage (but not coerce) out-of-class reading. School principals made every attempt to see that the teachers had a large supply of books and that these were changed as often as needed.

In the three classrooms utilizing *in-class grouping* instruction, reading was given in a conventional manner. Basic readers and their accompanying workbooks were used. Results from the Iowa Tests and teacher judgment were used to group children into two or three reading levels for instruction. Children were shifted from one group to another as their performance suggested the need for a change. Trade books and other basal texts were available for supplementary reading and children were encouraged to read during their spare time.

Children enrolled in two sixth grade classrooms in one school had reading as part of a language arts period, for which they were grouped into a relatively homogeneous group. Each of the teachers had children from the other sixth grade room for language arts and sent some of her own children to the other teacher for such instruction. For reading instruction each teacher subdivided her large group into two smaller groups, each containing children of similar reading ability. Each teacher used basic readers and workbooks to give reading instruction in a somewhat conventional manner. They encouraged outside reading in much the same manner as teachers of the in-class grouped children.

## Teacher Reports

Each teacher involved in the experiment completed a questionnaire designed to reveal important facts about her training,

377.

experience in teaching reading, and the instructional techniques used. All had taught at least five years, five had taught in two or more grades.

Each had taken one or more courses in the teaching of reading and most revealed a thorough knowledge of techniques to use in teaching reading.

Each of the teachers reported many excellent practices designed to encourage in-school and out-of-school leisure time reading.

## A Comparison of Results

A comparison of the mean reading ability of all three groups revealed the following gains (expressed in grade levels):

| | Gain in Vocabulary | Gain in Reading |
|---|---|---|
| 1. Individualized | .98 | 1.03 |
| 2. Ability Grouped | 1.06 | .98 |
| 3. Cross-class Grouped | 1.30 | 1.14 |

When the differences in test results were tested for significance, using Sheppard's *t* test, the only significant difference found was between gains in total reading of groups *two* and *three*. This difference was significant at the .05 level but not at the .01 level. All other differences were found to be too small to be statistically significant.

In addition to growth in reading ability, other important results of any plan of teaching reading are the effects on children's attitudes toward their reading and effects on their out-of-school reading habits. A questionnaire designed to determine these and other similar results was completed by each student involved in the study.

The individualized and ability grouped classes reported significantly more books read during the year than did the cross-class grouped children (medians were 27, 29, and 19, respectively). Reading was listed as a favorite school subject twice as often by the ability grouped classes as by the other two, but by only seven per cent of the children in the former group.

The individualized classes reported visiting the public library on an average of once per week. This was twice as often as reported by either of the other two groups. However, the ability grouped and cross-class grouped children mentioned reading as a favorite leisure-time activity more than twice as often as did those who were in the individualized program.

An attempt to measure the attitudes of the children and their parents towards the methods being used showed that ninety per cent of the children in each of the three programs believed their parents approved of the way they were being taught to read.

Every one of the children in the individualized program expressed approval of it. Eighty-two per cent of those in the ability grouped classes expressed a liking for the way they were being taught. On the same item seventy-five per cent of the cross-class grouped children responded favorably.

## Conclusion

The fact that neither of the three programs emerged as clearly superior to the others may have many plausible explanations. The one that seems the most reasonable to this writer is that the teachers who participated in the experiment were all of high ability. There was no attempt to get a highly objective measure of their relative abilities. However, their superiors rated them as about equal in enthusiasm, knowledge, and teaching ability. They had in common a deep understanding of children and a wide knowledge of how they learn. All had a fondness for helping children to learn to read; each was open minded enough to try her method without prejudging it.

The thing that the study probably illustrates most clearly is that the influence of the teacher is greater than that of a particular method, a certain variety of materials, or a specific plan of organization. Given the good teacher other factors in teaching reading tend to pale to insignificance.

378.

123.

403.

# E. INDIVIDUALIZING READING INSTRUCTION
## E1. MEETING INDIVIDUAL DIFFERENCES

### 1. Organizing a Classroom for Reading

DRUSILLA H. RHODES and
MIRIAM HOSACK
Sonoma County Schools, California

LET'S FACE IT; the better the teaching, as children progress through school, mastering personal reading skills in a group situation, the wider becomes the performance gap in terms of individual achievement.

#### A Teacher is a Catalyst

What are the factors that must be considered to provide materials for instruction, the equipment and other administrative "minutiae?" We will talk about the process in a classroom in which each child is actively engaged in mastering skills and content. We shall describe a visit made last December to a third grade class, and generalize briefly on how the teacher must draw from a vast inner resource to provide creative leadership.

This is a wise, warm, poised, talented young woman. She is married, has three delightful children, a successful husband. She spends hours outside the classroom; at the library picking out the right book for the right child, attending classes, in-service sessions, and digesting all the information she needs to know about each child, from test results, conferences, and professional reading. She spends hours inside the classroom; planning to make her classroom a true laboratory for learning.

#### Flexible Grouping is the Key

The children in her classroom live in a suburban area which has, in the last ten years, grown from home-owned prune ranches and vineyards to subdivisions and small factories. Growth has been rapid, there is mobility and a variety of cultures in the school.

This is a classroom where every type of grouping is employed, depending on the learning need. The hard core of reading instruction revolves around modifications of three major groups. The modification for the exciting class learning stems usually from the exciting things developed in and radiating from the discussions of the more able group.

Reading group III is made up of boys, with only one girl. We need no reminder of the different rates at which individuals progress through school. Each of these children brought his previous reading problems with him as he entered third grade. School is difficult, with reading the most frustrating experience of the day. By this time many are convinced they never can read. They have become defeated by the numerous daily proofs of their inadequacy. They are not unmindful of the glances they think they get from the rest of the class as they come to the reading table.

In the last month, three of the eight have moved and taken their reading problems to another school. They may stay in the next school only a few weeks before moving on. Only three members of this group have been in this school since first grade. These slow learners have been deprived of continuity in mastering read-

379.

ing skill. Each of this group has a long history of abortive attempts to help by school personnel; work with a speech and reading teacher, nurse and psychologist's reports, and four of these children are "repeaters." Three have serious emotional problems. How much of the low intelligence rating of this group is due to native ability, and how much to other factors is questionable.

On the Ginn Test all of the boys and the girl scored very low, with any high points due *only* to guesses. We find correspondingly low scores on the California Achievement Tests. These children were exposed to a variety of books last year. At the time of the visit they were in *Cowboy Sam,* easily read, attractive, with low vocabulary and high interest content.

The reading level is kept low to enable these reluctant readers to experience some success. Each child has a supplementary reader for use at home, and checking on it is done conversationally on a one-to-one basis by the teacher. This group experiences first grade work, presented on an advanced level, out of respect to their age and over-size. There were wonderful cowboy pictures on the wall that day. Experience charts are used, a book for stories of the group is on the board daily, reading games and much mimeographed work to reinforce sight vocabulary and phonics is used. Since in third grade we begin to read for content in other subjects, this group often meets again for special assistance in reading, spelling, math or science materials.

Because practice is important, each member tries to find time each day to read aloud to a classmate helper. These children need twice as much review as other children; teacher skill must be used to make it varied and purposeful. They enjoy game-type phonics and work learning activities. Mrs. Hosack tries to get this group to the reading table with anticipation, with the feeling "Isn't this fun?"

This is a critical "catch-up" year. They are having trouble with visual and auditory perception; the differences between "b" and "d," "went" and "want." Beginnings and endings of words are often confused. There is meager sight vocabulary and little idea of how to attack unfamiliar words. They read word for word with little attention to meaning, pointing and articulating as they stumble along. Directions must be brief, simple, and repeated often. Oral dramatization of new words and concepts, much discussion, and practice broadens vocabulary. Help in unlocking new words in any of the four ways: phonetic analysis, structural analysis, content, and plain memory, are stressed constantly.

If the reading learned daily in school gets much additional practice at home, if school experiences in reading are encouraged, if success in reading is felt often enough, this group can advance to become adequate second grade readers by the end of the year. Mrs. Hosack considers it her major task each day to prod, push, and lead these youngsters along the road to reading success. This is their chance to "catch-up" before entering the bewildering maze of the Middle Grades, with its redundant subject matter demands. If these children do not become self-motivated readers this year, the stigma and discouragement will increase until improvement will become almost impossible in another year.

Reading group II contains thirteen average readers, if such a term is possible. Diagnosis based on the Ginn Reading Readiness Test showed that all but two were having difficulty with consonants, and all but five were having some problem identifying different vowel sounds. All but five were having vocabulary difficulties, particularly in attacking unfamiliar words, although the group does fairly well at recognizing words in context. Most of them already know their compounds and recognize structural endings. They are experiencing comprehension difficulty in finding main ideas, putting events in sequence, and finding details. Although their reading scores were average for the beginning of third grade on the California Achievement Test, they were all low in spelling and language. A survey test is a point of departure in diagnosis. The significant clue for a third grade teacher is the relationship between reading and language and spelling performance.

Each in the group is "average" in age, with "average" intelligence scores, al-

though two have had health problems which resulted in repeated absences in lower grades. Three of the group come from split families, with less interest in reading activities at home. The children are still resisting good work habits, and skillful listening has not been mastered. Directions for independent work must be specific. When reading orally, frequent pauses indicate need for experience in phrasing. Children in this group had been exposed to a variety of different readers. Study of objective data indicated need for a review of a good second grade text. Houghton Mifflin 2-2 was chosen because it reinforces phonics and structural skills in stories of high interest that will develop reading for meaning.

Many in this group will make great strides in reading this year. Several are almost ready to advance to the next group. Some may need constant prodding all year to complete work, follow directions, and work on their own. The chance to move up to another group is good motivation to some students to work harder.

On this December morning they were reading the story of "Snip and His Brothers" and working independently on a mimeo which necessitated rereading the story for detail, and gave practice in using blends. They worked well at their seats on material that had been explained to them during the previous day's reading lesson.

Group I is the true challenge for the teacher. Here is a group of excellent readers; they have mastered the basic vocabulary and have no trouble in attacking unfamiliar words. They have good independent study habits and are able to work by themselves for long periods with a minimum of specific teacher direction. Mrs. Hosack keeps them motivated through on-going activities while she spends more time with the less able, who need her direct assistance more frequently.

These children had read Ginn 2-2 and were in Ginn 3-1. All are average or above, with no emotional problems to retard group learning, and they are all doing a variety of supplementary reading. They all come from happy, English-speaking homes, with two parents interested in their progress. All but two have had good health and attendance records throughout school. All scored above average on the reading sections of both tests, and there was high correlation with language and spelling.

They showed facility in skimming, syllabication, three letter blends, reading for sequence, main idea, and critical thinking, both in reading class and the rest of the day. They demonstrated skill in alphabetizing and reference work.

Mrs. Hosack uses the basic material as explained in the teacher's manual, which she presents in the reading lesson, as a springboard for creative writing: tall tales, riddles and poems. Impromptu plays are planned and given for the whole group. These children need this, for oral reading skills can lag behind silent reading ability if not motivated. SRA materials are used here twice weekly to stimulate good readers to still higher levels as self-evaluation skills are developed.

Children in this group help others in the class as they listen to and help with their reading, or prepare stories and reading games for the enjoyment of the whole class. Mrs. Hosack will develop in these children a greater depth of understanding and a wider range of reading tastes. She will work to keep the advanced children from developing lazy work habits, becoming bored or day dreaming. The basic text is the framework around which all the reading habits and activities are developed.

The children were reading and reacting to "The Chimpanzee who Mopped the Floor" when I saw them. New words were discussed, some philosophical questions were raised and tossed about, mimeographed and workbook pages were assigned. After a pleasant directed motivation the children returned to their seats to work independently. They used their time well. Three went in turn to the "Writing Castle," many were at the encyclopedia and library, several were on call to other children, but they were purposeful, busy, and beautifully self directed—and happy.

The progress is the sum total of the teacher's knowledge and skill. Reading groups are always flexible. When drill for the whole class is indicated, time is



taken at language or spelling. If only a small group needs reinforcement of a particular skill, say consonant blends, that group meets with the teacher. Work habits are discussed often, as needed. There is a prominently placed chart which serves as a constant reminder of the standards the class has set for itself.

Listening habits are stressed, with training given in following directions and learning new information. Mrs. Hosack has been successful in using the SRA Listening Tests, and relying on *My Weekly Reader*. There are always schedules for the daily lessons on the chalkboard, with suggestions for use of extra time. A chart and file box in the library also contain suggestions for supplementary activities. The library corner is a busy place each morning as students check out books. Each student is encouraged to have his own library card at the local library. The class has placed its first order for Lucky and Arrow Books which are inexpensive, attractively bound books students may own themselves.

There are encyclopedias for independent research and browsing, and they are used. The story castle made by the children with its turrets, a desk, a chair, and a light inside, is usually occupied. On the outside above the door is a sign, which, when the castle is not occupied, is turned to say "The Mystery Castle is Open." By the door are the rules made by the children:

When you get in write a story or poem
Put your story or poem in the box
Then change the sign to Open
Then the next person will do the same thing you did.
Never stay too long.

381.

124.



Vol. 5, 1960

## . In Grades 4-6

## . Through Organizational Practices

MARGARET A. ROBINSON

### Meaning of the Topic

The purpose of this discussion is implicit in the title—that intermediate grade teachers are vitally concerned with the progress of their pupils and are seeking plans of organization by which they can best teach the pupil to become an effective reader, both now and in the future. What are organizational practices? They are not methods of teaching but simply administrative schemes or plans of classroom management to help reduce the range of achievement and to enable the teacher to come closer to each pupil. To draft these plans, administrators and teachers must have understanding of the problems, and organizing ability as well.

Some organizational practices are new in the sense that we have not used them before, but they all seem to be modifications of the earliest plans of teaching. Variations of tutorial and monitorial plans, of graded and ungraded classes and schools have had a long history and continue to the present day. We might say that from the tutorial plan has developed the individualized program; from the monitorial plan has developed the group system; and due to the graded classes of the past there has continued the total class approach of today. What is difficult for some of us to realize is that grades were and are artificial divisions formed for economy purposes to help the mass rather than the individual.

This paper is a brief review of current practices. For more detailed accounts I refer you to recent educational monographs, procedures, and magazines and to the texts of Betts, Durrell, Gray, Harris, Yoakam, and others.

Two terms used frequently in connection with organization are *homogeneous* and *heterogeneous*. Webster defines *homogeneous* as meaning *"of the same kind or nature"*; and *heterogeneous* as *"differing in kind or nature."* We know that no two children are alike and when we speak of a homogenous group, it is a misnomer—there is no such kind of group. What we really mean by a homogenous group is a group of pupils in which the wide range of differences has been reduced. Three schemes of organization, then, are: (a) an individualized program in which each pupil is taught as an individual; (b) homogeneous groups, which are either classes or smaller groups with similar ability, achievement, interests, or needs; (c) heterogeneous groups, which are either self-contained classes or groups within a class. Modification of these three types will be discussed later.

Throughout this discussion there will be references to different kinds of groups. Briefly, they may be classed as follows: (1) pupil achievement, (2) mental ability, (3) special needs, and (4) pupil interests. Grouping by invitation, social and friendship groups are variations of some of these four kinds.

382

## Underlying Principles and Criteria of Organization

Once we decide on the form of organization we plan to use, we should believe in it and be enthusiastic about it. For this is the means by which we hope to help our pupils read more effectively, make more rapid progress, and arouse worthwhile attitudes and interests. We should discuss the plan with our pupils, enlisting their support and interest.

The pupils should be ready for the plan, too, through having learned good work habits of neatness, order, promptness, dependability, and consideration of others. They should be trained to share in the day's planning of activities, be able to follow written and oral directions, know how and where to get help and be willing to help others.

In addition to teacher and pupil readiness for a new plan of organization, parent interest and support should be secured through letters, visits, or meetings.

### Criteria

Why does a teacher sometimes find that a new pupil is rated too high on his record card? Doubtless because the former teacher has used only one criterion. What criteria do we use to organize our class?

1. Consultation of accumulative record cards provides a general idea of a pupil's achievement level. Useful information can be gained through conversations, inventories, and questionnaires.

2. The present teacher's observations through her daily teaching and supervision can yield valuable information.

3. Another method of appraisal is through the use of *informal tests* devised by the teacher to review the work taught and to find out the pupils' needs.

4. Vocabulary sampling tests from basal readers also give significant information about individual pupils.

5. Book-level tests based on selections in a series of basal readers are most helpful and can be given individually or in groups to test silent or oral reading. Some of the standards which should be maintained by most of the members of each group are: 75 per cent in comprehension, 95 per cent in accuracy a pronunciation, freedom from tensi rhythmical reading, and a conversatio tone.

6. A common method of appraisal the use of standardized tests which p vide a basis of comparison with natio standards. A list of the scores can be u as a means of grouping pupils for sil reading. However, standardized test sults should not be used as the s criterion for reading groups. To obtai fair measure of a pupil's reading abil combined results of several criteria essential.

### Brief Description of Various Plans

1. Total class approach

(a) There are still teachers in intermediate grades who claim they too busy to teach groups and they conti to teach reading to the class as a wh using the same reader for all pupils. W common interests, they feel they can bu up the *esprit de corps* of the class and s save preparation of many lessons.

(b) There are times when all forms organization use the whole class a group, as exemplified when teachin poem for appreciation or choral readi reading the class a story, frequently re ing in the content area, evaluation sharing periods, dramatization, sil movies, TV lessons.

(c) Related filmstrips projected screen and blackboard, as an aid to b readers, are often taught to the wh class. One would think that this hig motivated form of teaching would be e more effective if used with carefu selected groups. Here is an opportu for comparative experimental work.

2. Ungraded school

(a) The ungraded school plan bre the vertical lock-step grade organizat and removes the barriers between two more successive grades. The read period is at the same hour throughout elementary school. Because of the g differences in chronological ages then sometimes a separation between prim and intermediate grades. In the prim unit plan, the reading material is divi into a number of units (from 9 to

l pupils progress according to their n rates. At the end of the year there no failure of the slow readers nor eleration of the fast readers, but each pil continues in the unit where he ds comfortably.

(b) A similar practice may occur in intermediate grades when the usual ide barriers are removed and pupils are it to designated rooms for the reading riod. The teacher, or teachers, who re- ve the slowest readers usually have the aller classes. The other pupils go to rooms of the teachers who specialize their level of achievement. The advan- ges listed are: economy of teacher effort; ecial emphasis on reading skills; proper justment of reading material and in- uction; highly motivated pupils; pupils ith their own classes the rest of the day. n the other hand, the organizational echanics and movement of pupils is ne-consuming; and due to the various arning rates of the pupils, subgrouping ill be necessary for certain pupils. Also, is not advantageous to isolate the basal ader period from the language arts riod in the regular classroom. There e some pupils who feel unhappy if they e not in their social group.

3. Team Teaching

Another new pattern which breaks own room barriers of the same grade is metimes called team teaching. Here the achers of adjoining or connecting class- oms plan their work cooperatively and ke the responsibility of teaching the perior or the slow or the average read- rs. Pupils become accustomed to having wo teachers (their home-room teacher nd their reading teacher) and do not eel so strange as in the vertical plan here they are not in their social groups. he slow learner can be more relaxed and heerful when learning at his own rate, hile the fast learner can be more stimu- ated when progressing at a rapid pace.

4. Grouping in the classroom

A more common method of organiza- ion is the group system used in the self- ontained classroom. The pupils may be n heterogeneous classes or modified form f homogeneous classes, depending on the promotion policy of the school. Some chools may still organize their classes on he *ABC, XYZ* track on the mental ability basis. Some schools organize on the basis of reading achievement.

In self-contained classes a teacher may have two groups or three groups or four groups or multi-groups with pupil teachers. The texts used are series of basal readers and the time spent is from one hour to one and a half hours daily. In the two-group system, one group may be on the grade level and one below the grade level, with a few superior pupils and a few retarded pupils needing individual attention. In the three-group system one group may be on the grade level, one above and one below; or one group may be on the grade level and two below. (A deciding factor is the quartile of intelligence in which the school or class is placed.) With four groups a teacher may teach two grades on Monday and Wednesday, the other two on Tuesday and Thursday, and on Friday the class as a whole. When pupil teachers are used in the multi-group plan, they must be well prepared. One of the criticisms of the group system is that sometimes there is a stigma attached to the "low" group and "superiority" to the "top" group which will develop unwholesome attitudes in the learner. An understanding, skillful teacher using flexible grouping can do much to counteract such criticisms.

There are other types of groups in a self-contained classroom. One is the temporary special needs group formed to teach a specific skill. Another type, formed when teaching projects and subjects of the content area, is the group based on pupils' interests as shown in selected committees and research groups. The self-contained classroom, as well as having at times the total class, frequently has a variety of other groupings, such as tutorial individual teaching, a buddy system of partners, and congenial teams of two or three.

5. Individualized reading

A fifth approach in organizational practices is the increasingly popular individualized reading program. This type of program is much more extensive. Here the pupils read thousands of books (including some basal readers) under the teacher's guidance and each pupil has individual conferences with the teacher. The skills each pupil needs are taught

384.

him incidentally during his conference with the teacher, or sometimes in small groups.

In this program basal readers, as the core of reading construction, are removed but may be used for independent reading. The three underlying principles frequently quoted are: (a) seeking; (b) self-selection of books on pupil's level; (c) pacing (at pupil's own pace). The teacher is the counselor and, as well as using individual conferences, guides the class as a whole during the sharing and evaluation periods. Some advantages of this method are the high motivation and the close teacher-pupil relationship. Pupils have access to many more books and may form lifelong habits of good reading. The stigma of the caste system which is sometimes felt in the "low group" is removed. One disadvantage is the teacher's inability to have sufficient conferences with each pupil, and hence, failure to develop systematic sequences of skills for each pupil. Much of the reading is voluntary and the fast readers read widely and fluently, but the slow learners may accomplish little, feel inferior, and may dislike reading permanently.

## Some Tips for Teachers

The following is a list of techniques and suggestions teachers have found helpful in grouping:

1. If inexperienced in small group teaching, begin gradually. Establish rapport and good work habits with the class as a whole before starting a two-group system. When two groups are running smoothly, then start the third. For any kind of new organizational practice, start gradually. Make a careful study of the research findings on the plan.

2. Discuss the arrangement of furniture with the class and routinize the mechanics of moving furniture early in the year. If desks are stationary, have a reading "centre" of chairs near a chalkboard. Sit with the pupils and be a member of their group or reading club.

3. Make the "low" group feel as important as the "high" group. Help to promote an atmosphere of warmth, friendliness, pride, and willingness in each group. If names are chosen for the reading groups, be sure there is no a ciation between the name and the gr ability. A popular practice is to name group after the chairman. Rotate the o of chairman periodically.

4. Have flexible grouping because the varying rates at which some pu progress and because of irreg attendance.

5. Be sure that directions concer assignments are given clearly and un stood by the pupils. Provide a variet challenging and helpful seatwork ac ties. Check the work faithfully.

6. Confer with parents regularly letter, report, or interview. Also, h regular conferences with teachers of y own grade and with the whole staff.

7. Draft daily and weekly plans group activities. Give a fair propor of time to each group and pupil.

8. Do not become discouraged. your reading periods be enjoyable both you and your pupils.

## Conclusion

In conclusion I should like to l two quotations with you:

> The administrator can make plans, t supervisor can conduct teachers' meetin workshops and demonstrations, the readi specialist can give his best lecture, but t final test of all plans takes place in t classroom. One of the secrets of success differentiated guidance is the teacher's a ministrative ability. Without careful pl ning, differentiation can deteriorate to t level of confusion.[1]

> Today, a well-grounded reading progr includes several different kinds of cl organization—The question is no lon one of choosing between individualizati and grouping; but rather of how to co bine several kinds of organization, incl ing whole-class activities, individualiz reading, and group reading into a h monious whole.[2]

385.

125.

Vol. 10, 1965

# SEQUENCE VI A NEW LOOK AT ORGANIZING THE CLASSROOM

## A. PRIMARY LEVEL

### 1. Reading Instruction in the Ungraded Primary

RAMON ROSS
San Diego State College

THE NONGRADED school represents an attempt to make the school fit the child, rather than changing the child to fit the school. Current writers define the nongraded unit as a "pattern of organization designed to insure full recognition of individual differences in the instructional setting by the elimination of arbitrary grade classifications and grade expectations."[1] Or, to illuminate another aspect of this scheme, the nongraded primary is an organizational unit "that permits continuous educational progress for all by providing individual children opportunity to work at their own rates of speed without fear of failure."[2]

Breathing life into the theory of the nongraded primary is more difficult than one would initially assume. Examination of various nongraded programs and visits to nongraded schools forces me to conclude that much of what is labeled nongraded is in truth simply another form of grading. In these schools, children are grouped by ability, by reading age, by general academic progress, by interest, or by any one of a number of variables.

Contrasted with such grouping, the true nongraded primary takes all kindergarten, first, second, and third graders and randomly assigns them to primary teachers. With such a procedure, the typical nongraded unit of children will have within it equal numbers of five-, six-, seven-, and eight-year-olds. The child remains in this primary unit as long as he needs. Once he is capable of doing the work required of a primary child, he moves into the upper-grade unit. Such a move generally takes four years. It may take five or more, or it may take as little as two or three, based on needs and abilities of the individual.

Clearly, such a procedure will call attention to individual differences. When a teacher sees, sitting side by side, a five-year-old who doesn't know the letters of the alphabet, and a third grader who reads *Wind in the Willows* for pleasure, she can't very well set up one, or two, or even three reading groups and provide the necessary assistance to individuals.

Under such conditions, if the teacher is a poor one, her inadequacies will be even more apparent than with a graded system. Individual materials must be prepared and utilized if every child is going to benefit from his days at school. Such preparations demand not only time, but the teacher's insight, coupled with experience working with children of a variety of ages. And, of course, she must have a commitment to the nongraded primary, or her best efforts will lack substance.

It is plain that disadvantages and difficulties accrue to a school which chooses to implement an ungraded plan. But there are benefits as well. The nongraded system frees the community to educate its young in a new way. Freed of old restrictions, the school can experiment with the commodities: time, teachers, and curriculum.

Fortunately, there are at present enough ungraded schools that guidelines are developing which the school district contemplating such a change may use. While there is no guarantee that these guidelines will be the elements which will make a new program successful, they may provide some clues to success.

*Parent participation.* No new program can stand without parental support. One

[1]Louis T. Di Lorenzo and Ruth Salter. "Cooperative Research on the Nongraded Primary," *Elementary School Journal*. Feb. 1965, Vol. 65, No. 5, p. 269.
[2]*Op. cit.*



386.

school, for example, used meetings and handbooks to inform parents about the impending shift to nongraded classrooms. Parents were given an option; they could send their children to nongraded or regular classrooms within the same school. No pressure was placed on parents to select one or the other. In this same school, parents assist in the program by acting as teacher aides; preparing worksheets from dittos; typing children's creative writing stories; making covers for childen's books; and assisting in similar ways.

*Team teaching.* Nongraded primary offers an opportunity for teachers to make use of their own special abilities. One teacher might be particularly skillful in developing the auditory and visual readiness of reluctant readers, while another might be interested in oral reading, and a third enjoys comprehension skill development. The child is assigned to a homeroom teacher for much of his instruction, but he moves from teacher to teacher for specialized assistance. So far as we know, there are more benefits than disadvantages for the child who associates with several bright, interested adults.

*Pupil teams.* Children learn from one another. None of us who have watched our own sons and daughters teach each other would question this statement. The nongraded system can effectively make use of pupil teams. By permitting slower and brighter students to work together on certain reading skills, both benefit. The brighter child learns and overlearns the skill, and finds out something about tolerance while doing so. The slower child benefits from the attention showered on him by an older, more competent peer. He blossoms under this attention.

*Prescription teaching.* The diagnosis of a child's successes and failures must be continuous. Simple and usable resources are not presently available for such continuous diagnosis. The most practical method which has yet been devised is probably the individualized reading check list, and it is cumbersome and time consuming. Swift, efficient, and daily analysis and placement of students in appropriate materials is essential.

*Language learning kits.* Donald Parker has pioneered with materials for individualizing instruction. Kits are available for the primary child. Homemade versions of such kits can be constructed by the classroom teacher. Selecting exercises from old workbooks, abandoned readers, word lists, and the like, and preparing answer sheets with self-scoring procedures, the teacher can make available sequentially stepped materials adapted to individual needs. Such home-produced materials have the advantage of being appropriate to the local culture.

*A language-experience approach to reading, accompanied by individualized reading materials.* The San Diego County Schools have experimented for several years with this procedure for teaching children to read. With such a system, each child first tells his experiences, which the teacher records and the child then uses as reading materials. Later, the child writes his own materials, and reads from them. Finally, he reads the materials written by others. Word study, comprehension skill building, and oral reading are woven into the curriculum through the use of the child's own stories. Such a procedure is consonant with the ungraded primary, which is dedicated to individual growth.

## Conclusion

Individual instruction and improved mental health of students are worthy goals. The ungraded primary offers assistance in both of these areas. However, reading instruction may pose an even greater problem for the teacher of the nongraded cycle than for the regular classroom teacher because of the increased range of abilities present in a nongraded classroom. The teacher needs help in providing quality reading instruction. Adequate diagnostic techniques, pupil teams, learning kits, a wealth of good books, parent support and assistance, and a tough spirit are needed. With them, it may be that the nongraded primary can make the first years successful ones for a larger number of our children.

126.

Vol. 9 ,64

# SEQUENCE VI USES OF MULTI-MEDIA IN READING INSTRUCTION

## A. ELEMENTARY SCHOOL

### 1. Television as an Instructional Tool

CLARE B. ROUTLEY

SOME eleven million American children were enrolled in television classrooms last year, an increase of three million over the previous year. Seventy-nine per cent of the students were in grades kindergarten through 8 and they were regular viewers of television programs as part of their classroom routine. Television has been called the most powerful tool of education since the printing press and now more than thirty countries are using it as an aid in teaching, some of them for teaching reading. The competent educator today entertains no doubts of the value of television as an instructional tool. He knows that since its creation, television has been the young child's greatest interest and an active television program will hold his attention as no other medium will do. We know that children in primary grades still watch television 28 hours per week; those in the middle grades average 21 hours weekly and high school students only slightly less. Therefore, no educator in this decade can afford to overlook the potential of television as a medium of instruction in the basic subject of reading. To a minor extent it may relieve the teacher shortage that is common in all nations, but there is no doubt about its value to improve the quality of instruction.

Television should take to the school the best teaching techniques that the television studio can find. Certainly, a highly competent teacher on television can be much more effective in stimulating learning than a regular teacher who borders on mediocrity. For this reason, television teachers should be the best in the nation. A student who had observed a competent teacher conduct a lesson in reading, was heard to remark, "If I had a teacher like her, I would be a much better reader than I am." Such a remark might not be popular, of course, but good television programs bring pressure on the classroom teacher to excel. For this reason, the studio teacher should be a first-rate model of perfection and then the regular teacher, if she is so inclined, may add to her professional competency every time she observes a lesson.

Unfortunately, many educational authorities are apparently unaware of the value of television as a medium to teach reading or to improve instruction in the subject. If we regard reading as the basic subject of the curriculum and the one in which competency is demanded, if formal education is to be built, one would think that the first lessons to be given through the powerful medium of television would be in reading. However, there are many school authorities, superintendents, state and provincial departments of education with regular programs in science, mathematics, and social studies, but none in reading instruction at any grade level. Why are programs in reading the last to be organized in some areas? If reading is the basis of education, why are some school systems still patterning their telecasts on enrichment? Why do some teachers still regard television programs with mixed feelings ranging from excuses such as too many interruptions to that of causing havoc with their school programs? The answer to some of these questions is the lack of involvement of the teachers at every stage of television programing. This is not a complaint in Canada where there is much teacher involvement at pro-

[1]Professor Italo Neri, *Wide Horizons for All Ages*. The Times Educational Supplement, February 22, 1963, p. 347.



388.

vincial and national levels.

A study of educational television programs in North America and Europe during the past year reveals that programs in reading instruction are not as common as programs in science, social studies, and mathematics. In fact, a common response to a questionnaire inquiring about the use of television in reading was, "At the present time there is no school system in this area which uses television in the teaching of reading, but we hope to correct the situation shortly."

There are, however, many excellent programs in reading—in reading readiness for teachers and parents; for the primary and the intermediate grades; for junior and senior high school classes; and for college students and other adults.

There are more television programs in reading for adults than for any other age level. There are programs designed to teach adult illiterates to read, for the better-than-average readers who desire to become superior readers; and for those who wish to improve their speed and comprehension. STREAMLINED READING I AND II, produced by WKNO-TV, Memphis, Tennessee, adheres to the principles of adult psychology and is based on the teaching methods of Dr. F. C. Laubach. In a country like Canada where biculturalism and bilingualism are much in the limelight at present, EN FRANCE by television teaches thousands yearly to become bilingual. Some 234 persons participate in this series in which you meet people from France. One learns French from a French taxi-driver, a French waiter, secretary, gendarme, salesman, and even a French fortune teller.

Of the many programs for adults reported this year to the Television Committee, none was more impressive than *NON E MAI TROPPI TARDI* (IT'S NEVER TOO LATE), reported by the Ministry of Public Instruction in Rome. This program shows that Italy is a leader in educational television. In 1962, almost one-third of all Italian television programs were devoted to school broadcasting. IT'S NEVER TOO LATE was designed to teach reading to those of all ages who had to leave school early to earn a few *lire* to help balance the family budget. Some 5500 "reading centers" have been set up throughout Italy where adults gather to learn to read. At each center a competent teacher is present. People of all ages come to these centers to learn to read by television. Once the broadcast is over the teacher follows it up with exercises in reading and writing. Each year more than 30,000 take the final examinations and more than 70 per cent pass, which means that they have learned to read and write by means of television. Of this program, Professor Italo Neri says, "In the field of reading, the magic power of television can exert its full impact and so restore hope and confidence to thousands of people who, rescued from the bondage of illiteracy, are brought back into society."[1]

"Seven hundred million adults in the world are illiterates and the number is increasing at the rate of 20-25 million a year."[2] These are the figures released as late as March 23, 1964 by UNESCO from its Paris Office. It would appear that we are not holding our own in the great struggle with illiteracy. It was some fifteen years ago that the United Nations adopted the Universal Declaration of Human Rights. Article 26 of the Declaration reads, "Everyone has the right to education." Now some 15 years later after the adoption of the Declaration there are hundreds of millions who cannot read the sentence in which the UN acknowledged their sacred right.

It is gratifying to read that plans are being made to make literate about 330 million between the ages of 15 and 50 years within the next ten years. It is the medium of television to which the masses must look as their main hope if they are ever to learn to read. We know that the potential of television as an instructional medium is unlimited and yet unexplored. We are told that one telecast beamed from a satellite will be able to take instruction to an entire nation and perhaps a group of nations. One teacher, and let us hope she is the best to be found, will be able to teach a reading lesson to one billion people. Furthermore, we are told that such system of communication satellites will be in full-scale operation in 10-15 years.

Perhaps, then, we in the developed countries should take stock of our reading

[1]Press Release, No. 2474, UNESCO. Place de Fontenoy, Paris 7e, March 23, 1964.



programs by television. We shall need some central evaluation service to see that only the best are produced and that they are preserved for posterity. We must be certain that television programs in reading are designed by masters of reading techniques and produced by the nation's most competent educators. It is the birthright of every child to sit at the feet of a great teacher. For some children, their great teacher may be the one observed on television.

389.

121.

The Individualized Rdg. Pgm: a guide to classroom Teachers. IRA Conf. Proc. Vol. 11, Pa rt 3, 1966. Lyman C. Hunt Jr. (Ed.)

HARRY W. SARTAIN

UNIVERSITY OF PITTSBURGH

# 10. Of Stars and Statistics

A GREAT MANY teachers today have stars in their eyes! They are the ones who feel refreshed and excited because they have been released from the strictures of misused single basal reader programs that once required every child to plod through the same stories that he might have heard others read and discuss before him. In most schools the teacher who uses a variety of interesting books of differing difficulty to help make reading profitable for his or her class no longer feels the stings of verbal stilettos projected by jealous, less ambitious colleagues; nor does he receive the criticism that used to come from a misguided supervisor when one did not follow a lock-step program.

It is no longer uncommon to find well-stocked elementary school libraries that provide books to extend and differentiate basal group teaching or to initiate various types of individualized reading programs. So constellations of kids see happy lights twinkling in the eyes of their teachers.

## Research Suggests Cautions

I love to see stars in teachers' eyes! Invariably those stars are reflected and multiplied scores of times in the eyes of children seeing new visions and vistas through books. But beware! Unstable stars can fall from their heights of weightless ecstasy and be burned into extinction by the friction of reality in the earth's atmosphere. We, likewise, can suddenly be overwhelmed by unrecognized problems inherent in individualized reading programs. Then the spontaneous reaction of reality can blister away our advances of freedom and enrichment. It behooves us, therefore, to look beyond the warm starry promise of this new-found freedom toward the cold statistical truths that suggest certain cautions and modifications for the individualized programs we have in operation.

*Let us be careful not to be misled by accepting experimental findings without critical evaluation.*



390.

390.

Enthusiastic proponents of any instructional plan are often tempted to overstate their case. Among summaries of experiments purported to favor totally individualized reading one usually will find studies that contain serious faults.

1] Most of the experiments have included no control groups for comparison.

2] Experiments that have included control groups in their design have not always controlled all aspects of instruction. A close look at the reports often shows that extra time was spent on reading in the individualized classes, extra books were made available, and teacher selection procedures did not assure equivalence.

3] Achievement in many experiments is influenced by halo or novelty effects, the UFO's of the world of research. A recent study in Wisconsin, for example, may have suffered from halo effects even though it provided the most varied types of data and was one of the longest and most carefully planned experiments on this subject. After spending their first three years in two different programs, the groups in this study did not achieve at significantly different levels in oral reading, nor on a measure of social adjustment. The mean scores on tests of vocabulary and comprehension were significantly different favoring the individualized classes, even though these differences were very slight (from .5 to 1.5 raw score points) (*15*). Questions about novelty effects arise when we observe that on arithmetic comprehension, the test involving the least reading, the mean scores of individualized classes were 2.5 points higher than those of children in basal reader groups. If the classes in the two programs were of equal ability, why should the experimental classes surpass the control classes so much in arithmetic, an area of work not directly involved in the experiment? Was it because of the novelty of being in experimental groups? Might there have been a difference in teacher capabilities between experimental and control groups?

4] While several studies offer fairly adequate proof that some teachers can employ the individualized approach to produce satisfactory pupil achievement on general tests of vocabulary and comprehension, there are many questions that have not yet been answered (*7, 25*). "Does it teach the reader to set purposes for reading, to alter

his rate to suit purpose and material, to use a dictionary, to gather and organize information? Does it give him knowledge of roots, prefixes, and suffixes needed to analyze and understand difficult vocabulary encountered later? Does it teach him to appreciate such literary qualities as honesty, imagery, figurative speech, apt characterization, and language facility? . . . Does it teach him to evaluate material read in respect to its factual or fanciful nature, its relevance, its adequacy, its completeness, its accuracy, and its propaganda features?" (*20*) Unfortunately the observations made by Austin and Morrison for the Harvard Report show that skills teaching in individual conference was scanty, with most stress on general factual comprehension and little on high level comprehension and critical reading (*3*).

***Let us be sure that this approach is suited to our general teaching capabilities and will continue to stimulate our own enthusiasm and that of our children.***

Many studies have shown that certain teachers generally produce better results than others regardless of specific methods used (*21, 14*). Each teacher should utilize the techniques that are most successful for him, and individualized reading may or may not be one. The enthusiasm of children, too, must be maintained after the initial novelty wears off. Perhaps this was a problem in the Wisconsin study, which showed individualized classes reading more books in first grade, but fewer than basal group classes in the third grade (*15*).

***Let us be sure that we have enough knowledge of desired outcomes, materials, evaluative and diagnostic techniques, and teaching methods to provide adequate individual skills programs for all children.***

Groff questioned thirty-four teachers who had used individualized reading successfully and found their main problems concerned their lack of books, their lack of familiarity with books, and inadequate pupil habits of self-direction. The majority felt basal readers and workbooks should be used to teach word analysis skills before or in connection with the individualized work (*12*). These teachers certainly showed good judgment if we take seriously the results of several investigations of other teachers' knowledge of skills we are supposed to teach. Separate studies by Spache and Baggett (*23*) and by Aaron (*1*) yielded quite similar results. When teachers were given tests on phonics and syllabication, their

scores were related to length of teaching experience, but most teachers revealed serious shortcomings in their knowledge of word analysis principles. One group of experienced instructors averaged only 75 per cent of the phonics items correct and 68 per cent of the syllabication rule items (*23*). Using her own *Phonics Test for Teachers,* Durkin found that although experienced teachers could *apply* word analysis rules fairly well, only as few as two per cent and 29 per cent could *explain* certain principles that they had utilized (*8*).

Several additional studies (*6, 10, 17, 22*) have provided further evidence that many of us lack adequate knowledge for teaching reading skills without a guide, and a couple more suggest that we cannot diagnose pupils' difficulties satisfactorily through observation of their daily reading. Working with twenty-three teachers who were completing a six-credit graduate course in remedial reading, Emans attempted to assess their capabilities in tailor-making instruction to fit individual needs of the children they taught. The teachers were given a list of fifteen reading skills and were asked to rank them in the order they were needed by each of the pupils that each teacher had been tutoring during the course. Although the teachers had had from one to thirty-five years of experience, only five of their forty rankings were enough like rankings on tests so that they could not be accounted for by chance. The investigator concluded that the teachers' judgments about individual reading needs were influenced by bias, and reading skills patterns are too complex for most teachers to diagnose informally (*9*).

Apparently many teachers are well aware of their problems in attempting to diagnose individual skills needs, because 90 per cent of 268 respondents to a questionnaire survey done by Adams indicated that they felt a need for learning more about diagnosis and corrective teaching (*2*).

Although studies of teacher knowledge thus far have dealt almost entirely with the obvious word analysis skills, we might expect that many of us would have as much or more difficulty on tests of some of the more complex comprehension and evaluative reading skills.

*Let us be sure that we want to spend the time and effort that is required to make an individualized program fully successful.*

Today some of us, both at the elementary and secondary levels, still follow the indefensible practice of teaching reading to a whole class without any differentiation. Others, who are far more conscientious, do not feel we can find time to give adequate attention to more than three

or four reading groups at the most. Is it realistic, then, for some to plan to expend the energy required to plan to teach thirty children as if each were a different group?

Proponents of fully individualized reading usually recommend a minimum of two instructional conferences per week. This means that if you are an intermediate or junior high teacher with thirty pupils in a class, and if you are fortunate enough to have a full hour daily for reading, you will have time for fifteen minutes of daily group activities and only 7½ minutes divided into two conferences per pupil during a week. As a primary teacher you may have twice that much time. Can you teach a child *all* the refinements of reading needed for real scholarship and reading fluency in that length of time? How many hours of careful advance preparation may be required to conduct twelve precise and effective instructional conferences of three or four minutes' length plus certain group activities during an hour's time?

According to observations made for the Harvard Report most individualized reading teachers found it impossible to have conferences as often as recommended; frequently they scheduled a pupil for a conference only once in every one to three weeks (*3*). Safford, in an earlier study, found that teachers who were using an individualized approach in a non-experimental situation produced achievement gains that were markedly inferior to gains in the regular basal reading classes (*18*). Perhaps this was because their energy could not be maintained over a long period of time when they were not receiving the stimulation of being in the experimental spotlight.

A considerable proportion of "individualized reading" teachers report that they save time by grouping the children for most skills work (*12*). This contradicts their contention that they teach a skill exactly when each child needs it.

*Let us be careful not to expect all children to learn equally well from the same types of experiences.*

Analyses of children's problems in various situations have shown that they have differing capacities for learning by visual, auditory, kinesthetic, and combination modes. Most reading systems place a high premium on visual perception skills, but this is especially true of individualized reading, where group work is minimized. In this situation, what happens to children who need much more opportunity to experience auditory stimuli

through interaction involving reading several times a day with other pupils and the teacher?

Not only must we be concerned about the child's best perceptual mode, but we must also be aware of the effects of classroom atmosphere and organization on learning. Research reported during the last several years suggests that there are two types of pupils who are more successful in a structured classroom situation than in an informal one. These are the children from disadvantaged homes and those who are highly anxious or compulsive.

Ausubel and Ausubel found that in comparison with more privileged children, deprived youngsters depended more on external than internal control; they also had more difficulty in accepting responsibility (*4*). Harris and Serwer, in their year-long experiment involving more than a thousand first grade children from deprived areas in New York, concluded that a carefully structured basal approach produced slightly, but significantly higher, achievement and better pupil attitudes than a language experience approach that gradually progressed into individualized reading (*14*). If, as Reisman says, deprived area children respond best in a situation that includes structure, rules, discipline, order, and strong external demands for achievement (*14*:8), can we expect them to attain maximum success through completely individualized reading?

The second type of relationship between achievement and classroom structure was revealed in a study reported by Grimes and Allinsmith. They discovered that third grade children who were highly anxious or compulsive achieved significantly less reading growth in unstructured, permissive situations than they did in more structured, formal classrooms (*11*). I became fully convinced of the validity of this study by observing four primary children in Pitt's laboratory school this year. Last year this group had a teacher who was highly organized, consistent in expectations, and pleasantly autocratic. The children liked her even though they felt some pressure when doing both group and individual reading work, and they made phenomenal progress. This year they have been with a teacher who tried to individualize some phases of her teaching so completely that the situation appeared somewhat disorganized for a while. The children have liked this teacher, too, but midyear achievement tests showed they had made little or no gains in reading. A study of psychological reports and cumulative records revealed that every one of the four children had a history of anxiety.

While we must provide freedom for exploration and creative thinking

in classrooms, it seems apparent that we must also maintain enough of the structured, systematic procedures so that certain groups of youngsters can progress satisfactorily in learning basic skills.

*Let us be careful not to permit the poorly motivated pupil to become a mental dropout.*

Every classroom contains, in addition to children having problems of the types just mentioned, some other children who need constant encouragement because they are not readily motivated to do academic work. Some may be from homes where the parents do not read, so they do not place high value on reading. Others may be relatively slow learners who do not find academic pursuits very rewarding. What happens to these children when they are given no more than ten minutes of direct reading instruction per week, or perhaps with an easy going teacher only ten minutes every two or three weeks? Even in my second grade experiment, where all teachers were conscientious about scheduling conferences regularly, children in the lower third of the ten classes learned significantly (at .05) more vocabulary through basal group instruction for three months than through individualized reading for three months (*21*). While some people claim that slow groups learn more by individualized reading than basal group work, this probably would be true only if basal class teachers made no provision whatever for individual differences. No doubt it is better to give a child an interesting book at his reading level, even with little instruction, than to bedevil him into trying to read a grade-level book that is far too difficult.

## Combined Approach

The individualized reading movement has inspired us to expand and enrich the reading programs for children in our classrooms. But in our enthusiasm we must be careful not to let the stars in our eyes blind us to possible inadequacies in programs that are entirely individualized. Numerous children have problems of motivation, purposeful self-direction, and need for structure. Most teachers need guidance in planning a complete skills program and in diagnosing pupils' specific difficulties. Therefore more and more teachers prefer to combine the best from both the basal and individualized approaches (*5, 19*). The basal work in small groups can provide the necessary structure with an organized sequential introduction to all the fundamental skills. The addition of individualized reading periods, according to some findings, will stimulate

396.

children to read more widely (*24*) and possibly will insure their having better attitudes toward reading (*13, 16*). That will put stars in our crowns as well as in our eyes!

## References


1. Aaron, Ira E. "What Teachers and Prospective Teachers Know about Phonic Generalizations," *Journal of Educational Research,* 53 (May 1960), 323-330.
2. Adams, Mary Lourita. "Teacher's Instructional Needs in Teaching Reading," *The Reading Teacher,* 17 (January 1964), 260-264.
3. Austin, Mary C., and Morrison, Coleman. *The First R: The Harvard Report on Reading in Elementary Schools.* New York: Macmillan Co., 1963, 87-94.
4. Ausubel, David P., and Ausubel, Pearl. "Ego Development Among Segregated Negro Children," *Education in Depressed Areas* (A. Harry Passow, Ed.). New York: Bureau of Publications, Teachers College, Columbia University, 1963, 109-141, as summarized by Edmund W. Gordon in "Characteristics of Socially Disadvantaged Children," *Review of Educational Research,* 35 (December 1965), 377-388.
5. Blakely, W. Paul, and McKay, Beverly. "Individualized Reading as Part of an Eclectic Reading Program," *Elementary English,* 43 (March 1966), 214-219.
6. Broman, Betty Lou. "Factors Associated with Teacher Knowledge of Reading Skills," *Dissertation Abstracts,* 23 (December 1962), 1966-1967.
7. Duker, Sam. "Needed Research on Individualized Reading," *Elementary English,* 43 (March 1966), 220-225, 246.
8. Durkin, Dolores. "Fundamental Principles Underlying Phonics Instruction," *Reading and Inquiry,* IRA Conference Proceedings Vol. 10 (J. Allen Figurel, Ed.). Newark, Delaware: International Reading Association, 1965, 427-430.
9. Emans, Robert. "Teacher Evaluations of Reading Skills and Individualized Reading," *Elementary English,* 42 (March 1965), 258-269.
10. Gagon, Glen S. *A Diagnostic Study of the Phonic Abilities of Elementary Teachers in the State of Utah,* Doctoral dissertation, Colorado State College, 1960.
11. Grimes, Jesse W., and Allinsmith, Wesley. "Compulsivity, Anxiety, and School Achievement." *Merrill-Palmer Quarterly,* 7 (October 1961), 247-271, as summarized by Philip W. Jackson and Nina Strattner in "Meaningful Learning and Retention: Noncognitive Variables," *Review of Educational Research,* 34 (December 1964), 513-529.


397.

12. Groff, Patrick J. "A Check on Individualized Reading," *Education,* 84 (March 1964), 397-401.
13. Gurney, David. "The Effect of an Individual Reading Program on Reading Level and Attitude Toward Reading," *The Reading Teacher,* 19 (January 1966), 277-280.
14. Harris, Albert J., and Serwer, Blanche L. *Comparison of Reading Approaches in First-Grade Teaching with Disadvantaged Children.* Cooperative Research Project No. 2677. New York: Office of Research and Evaluation, Division of Teacher Education, City University of New York, 1966.
15. Johnson, Rodney, et al. *A Three-Year Longitudinal Study Comparing Individualized and Basal Reading Programs at the Primary Level: An Interim Report.* Milwaukee: Lakeshore Curriculum Study Council, February, 1965.
16. McCracken, Robert A.; Leaf, Bernice; and Johnson, Laura. "Individualized Reading with Pupil Teachers," *Education,* 86 (November 1965), 174-176.
17. Ramsey, Wallace. "Will Tomorrow's Teachers Know and Teach Phonics?" *The Reading Teacher,* 15 (January 1962), 241-245.
18. Safford, Alton L. "Evaluation of an Individualized Reading Program," *The Reading Teacher,* 3 (April 1960), 266-270.
19. Sartain, Harry W. *The Place of Individualized Reading in a Well-Planned Program,* Ginn and Company Contributions in Reading No. 28.
20. Sartain, Harry W. "Research Critiques," (Patrick Groff, Ed.), *Elementary English,* 42 (December 1965), 925.
21. Sartain, Harry W. "The Roseville Experiment with Individualized Reading," *The Reading Teacher,* 13 (April 1960), 277-281.
22. Schubert, Delwyn G. "Teachers and Word Analysis Skills," *Journal of Developmental Reading,* 2 (Summer 1959), 62-64.
23. Spache, George D., and Baggett, Mary E. "What Do Teachers Know about Phonics and Syllabication?" *The Reading Teacher,* 19 (November 1965), 96-99.
24. Talbert, Dorothy G., and Merritt, C. B. "The Relative Effectiveness of Two Approaches to the Teaching of Reading in Grade V," *The Reading Teacher,* 19 (December 1965), 183-186.
25. Townsend, Agatha. "What Research Says to the Reading Teacher: Ten Questions of Individualized Reading," *The Reading Teacher,* 18 (November 1964), 145-149.

398.

128.

Vol.5, 1960

'ART II

# )ifferentiating Instruction to Provide for the Needs of .earners

## . In Primary Grades

## ı. Through Organizational Practices

WILLIAM D. SHELDON

It is my function to describe the prac-ces in the organization of reading classes ı the primary grades, which make pos-ible the use of methods and materials to e discussed by Dr. Smith.*

### Grouping for Reading

The majority of primary teachers teach eading to groups of children. For the ıost part primary classrooms are divided o that each class contains a heterogeneous roup of children taught all day by one eacher. Reading instruction, while a major ctivity is but one of the tasks of the eacher of the self-contained class.

In many primary classrooms there are laily reading lessons. Sometimes two peri-ds a day are devoted to reading. It is sual to find a morning period devoted o basic reading instruction while the fternoon is given over in part to a free eading period or to review lessons.

The majority of the primary teachers vho instruct a heterogeneous group of hildren in terms of intelligence, social nd emotional maturity, and interests, livide their classes into three reading groups. Some teachers divide their classes nto two groups, and it is not unusual to ind classes divided into four or even five groups for reading instruction.

The advantages of grouping children re those related to economy of time and effort and also that which derives from he value of group discussion of common earning experiences. An obvious disad-vantage of dividing a heterogeneous class nto even as many as five groups is found n the fact that even in a small group not ll the children will profit from the same esson given at the same time.

Teachers defend a grouping procedure as differentiated from an individualized approach on the basis that grouping facilitates the presentation of certain basic elements to a more or less equated group of children. Vocabulary, word recognition skills, concepts, and comprehension skills are all developed through the presentation of simple material made palatable and possible to read by careful motivation, artful concept development, and well planned activities related to the silent and the oral reading of the materials. Those children who find the material relatively easy to read are given more difficult stories as supplementary reading. The children who encounter difficulty in reading the material are provided easier stories which help them develop more adequacy in word recognition and comprehension.

Some teachers allow for flexibility in their grouping. Children who make rapid progress can move from their original group to one which is instructed on a higher level. Other children who might find the pace of their group too rapid and the material and skills too difficult are moved to a group which is instructed on a lower level. Such flexibility is not common however. The tendency is for children to remain in their original group for a term or a year. Growing differences in tastes and interests and provision for reading challenging or easier material is either left to chance library reading or to planned or guided "free" reading periods.

Because of the various problems related to the teaching of a wide range of children in a number of groups—each group with its own range of abilities—a number of administrative plans have been developed, aimed at simplifying the instructional problem by limiting the range of reading achievement within a classroom.

Group and occasionally individual tests of reading comprehension and vocabulary are used to assess the reading status of boys and girls. Those who read with more

*Dr. Nila Banton Smith of New York University.



399.

or less the same ability on the same level are assigned to one teacher while those who read on a higher level are placed with another teacher. The range of reading ability is reduced for each class but of course differences in reading are by no means eliminated.

One widely known plan has been used in a number of schools. In this plan all the children in the second grade, for example, are tested and all the second graders are assigned to relatively homogeneous reading classes. The number of classes is determined by the number of second grade classrooms. In a large elementary school with six or seven second grade classes the children are divided into six or seven groups of more or less equal size. In some instances the class to which the poorest readers are assigned is the smallest one. The small size of the poorest class helps to compensate for the difficult task of instructing a whole class of poor readers.

The homogeneous arrangement might exist for reading instruction alone or it might maintain for the whole program. If it is arranged for reading alone, then children leave their usual heterogeneously grouped classes at a certain time and report to reading classes to which they have been assigned. The speaker has observed the mass movement of small children in a primary school and can only say that it was an illuminating experience. One received the impression of order and routine of a somewhat depressing nature.

Let us consider the second grade children in a particular large elementary school surveyed recently by the speaker. The range of reading ability at the beginning of the school year was rather typical for a second grade. Some children read in a faltering manner on a pre-primer level, others read with ease on the second grade level, a few read with fluency on the third or even fourth grade level. After the reading testing was completed, the children were divided into six so-called homogeneous classes. The poorest class contained several virtual non-readers, two or three repeaters who would soon be classified as remedial readers, and a few who read in a mechanical manner, without zest or understanding, on a pre-primer level. It is important to note that in this class we found the least mature children, intellectually, socially, and emotionally. Some of the dullest second grade children were found in this class and probably several future "problem" children. The class as a whole lacked interest in learning to read and displayed a very limited facility in all aspects of language.

On the other hand, in the best reading class we found children who read the second grade level reader with ease and actually would have profited from instruction on the third grade level. The ablest readers progressed so rapidly through daily instruction and their own desire to learn that they were ready for fourth and even fifth grade level material before the year was finished. The speaker has often tested the best readers in such a second grade class and found them able to read fifth grade materials at sight and to comprehend what they have read with comparative ease. Needless to say, this class of the most able readers also contained the most intelligent, most mature, and most highly motivated children in the second grade. The class as a whole reflected a great interest in language. Discussions were highly stimulating and verbal concepts easily grasped. It was easy for the teacher to motivate these children. Reading was the favorite subject in this class.

When we visited the middle four groups, ranging in reading from low average to slightly above average, we were struck by the lack of enthusiasm in the classes. The children plodded through their lessons in a methodical manner. Inspiration and leadership were left to the teachers, as few of these children had the spark which inspires or the ability to lead others in verbal activities.

In this particular school it has been found that in spite of the relatively homogeneous nature of the children in reading ability, grouping is still needed for almost all adequate instruction. The children are now divided into the good, better and best readers or in the case of the least able into the poor, poorer, and poorest readers.

It is true that the over-all range of reading ability has been reduced in each class, but as we observed these homogeneous groups in action we could not help but think that through the plan teacher

400.

had removed the light and joy of reading from five of the six classes. All of the intellectual leadership had been siphoned off to form one class. The rest were left without the keen, verbal children who make each class a delight in a more heterogeneous arrangement.

The fact that the grade was divided homogeneously for reading alone was some compensation for the teaching staff and pupils. Where children remain in homogeneous classes throughout the day every week of the year, there is no relief.

Another plan provides for an even more intensive homogeneous grouping arrangement. In this plan the first grade children are not included in the grouping but left in self-contained classes. Second and third grade children are tested and children of both grades are placed in homogeneous groups for reading. This means that a total population of second and third grade pupils ranging in reading ability from pre-primer to fifth or sixth grade level are placed in relatively homogeneous classes for reading. The lowest class would contain the poorest second and third grade readers while the highest class would contain the best second and third grade readers.

In a few schools all children from the second to the sixth grade are included in one grouping plan. Some second grade children, a few from the third and one or two each from the fourth, fifth and sixth grades reading on a pre-primer or primer level, can be found meeting for reading lessons in the same class.

A widely publicized plan has used between grade grouping for intermediate grade children alone. The sponsors of this plan report that they have met with great success.

### Individualized Reading

Dr. Smith will discuss the individualized plan in some detail. Our comments will relate only to the organization of the class in which each child is taught on his own instructional level.

If one visits a certain first grade classroom in which reading instruction is individualized, he finds each child reading material of his own choice. While many pupils have mastered a sight vocabulary through group instruction using basic pre-primer and primers or experience charts, the children now choose materials which interest them and read on their own. The teacher moves from child to child during the reading period. During a typical morning the teacher hears six or seven children read or else listens while the children discuss the material they have read.

Later the teacher might ask three or four pupils who seem to exhibit similar reading difficulties to meet and consider the mutual problem. The teacher attempts to clarify the problem and might also present material through which the pupils practice the skill or process until they learn it.

All the children meet together during a special reading period to discuss their reading, read a poem in a choral fashion, or share their reading experiences in some other way.

The movement is from individual to small group to whole group and then back again to the individual. A library table or shelves containing a wide variety of reading materials is a must in such an organization. It is expected that each child will be on his own in terms of his selection of materials.

At the present time there is no real proof that one pattern of organization is superior to another in the primary grades. Those who favor the grouping of children for instruction within a self-contained primary class receive satisfaction from teaching three or four small groups of children, on different levels, using varied materials.

Those teachers who favor the individualized approach insist vehemently that this is the only way to give each child the kind of reading program that is most profitable for him.

The teachers who are involved in the homogeneous plans and departmentalized instruction for reading feel that they have an answer to the problem of individual differences.

It is the speaker's opinion that the heterogeneous self-contained classroom is the most natural arrangement in the elementary school. It is also our opinion that grouping within a classroom becomes an art as the teacher develops skill in her



profession and as children develop independence in learning. Rather than advocate an individualized program to the exclusion of teaching small groups we would advocate a continuous movement from individual to small group to whole class and back again to individual instruction. There are skills, procedures, ideas which are best presented to a small, relatively homogeneous group of readers. There are other skills that must be mastered by the individual on his own.

There are certainly times when the whole class can participate in such activities as choral reading, dramatizations and storytelling by teacher or pupils.

Organization should facilitate and never hinder the development of a well organized, well integrated, sequential reading program.

401.

129.

Vol. 7, 62

# 3. Substrata-Factor Theory of Reading: Theoretical Design for Teaching Reading

HARRY SINGER

Implicit in the substrata-factor theory of reading (11, 12, 14, 17, 18, 29) is a theoretical design for teaching reading. This design is visually represented by a statistically-determined model of substrata-factors that an individual might mobilize for attaining power and speed of reading. Because substrata-factors mobilized in a general working-system undergo qualitative and/or quantitative changes with maturity in reading, several models are necessary in order to cover the developmental range of general reading ability. Each model, however, is only a *momentary* organization of the structure of the general working-system that underlies power and speed of reading. To explain the dynamics of the model, and to show how it can be used as a theoretical design for teaching reading, I shall draw upon the substrata-factor theory of reading. The model at the fourth grade level will serve as an example.

## Substrata-Factor Model: Grade 4

After a comprehensive review of the literature, 36 variables were selected (4, 7, 13, 15, 21) or constructed (28), and administered to an apparently representative sample of 60 fourth graders. Substrata analyses of the matrix resulted in the model (29). This model, Figure 1, shows the levels and positions of the selected variables, and their direct and indirect contributions to the variance of the subcriteria and to the major criteria, Speed and Power of Reading. The number adjacent to each variable gives its per cent contribution to the variance of the predicted subcriterion or criterion. Because three variables are common, the total number is only 17. Altogether these variables account for 77.1 and 89.3 per cent of the variance in Speed and Power of Reading, respectively. Variances not accounted for must, of course, be attributable to variables other than those used in the construction of the model, such as: functional oculomotor efficiency (9), speed of processing visual stimuli (10), mobilizers (17), and flexibility (22).

The model may be read in various ways to determine how the mind might organize its subskills, ideas, and capabilities to solve a problem in reading. For example, the use of spelling recognition together with prefixes, and spelling recall (right-hand side, Level III) enter into the constellation of subabilities that make up Word Recognition in Context. Word recognition in context, plus suffixes, and mental age contribute to the variance in Vocabulary in Isolation. Finally, on the highest level, vocabulary in isolation becomes integrated with suffixes, mental age, and matching sounds in words to culminate in Power of Reading.[1] Again, starting with spelling recognition, Speed of Reading can similarly be worked out.

The dynamic processes may be visualized as a sequence of constantly changing sub-models, each a representation of a working-system, momentarily mobilized to satisfy the purposes of the reader and the demands of the task. For example, an individual at one time may organize a substrata-factor sequence for the purpose of transforming symbolic stimuli into mental processes for the association of meaning; at another moment, for solving a word-meaning problem; and, at the next instant, for conceptualizing, relating ideas,

[1]The predictors at this highest level are purified by a suppressor-like effect (16, 23), contributed by consonant phonics.

402.

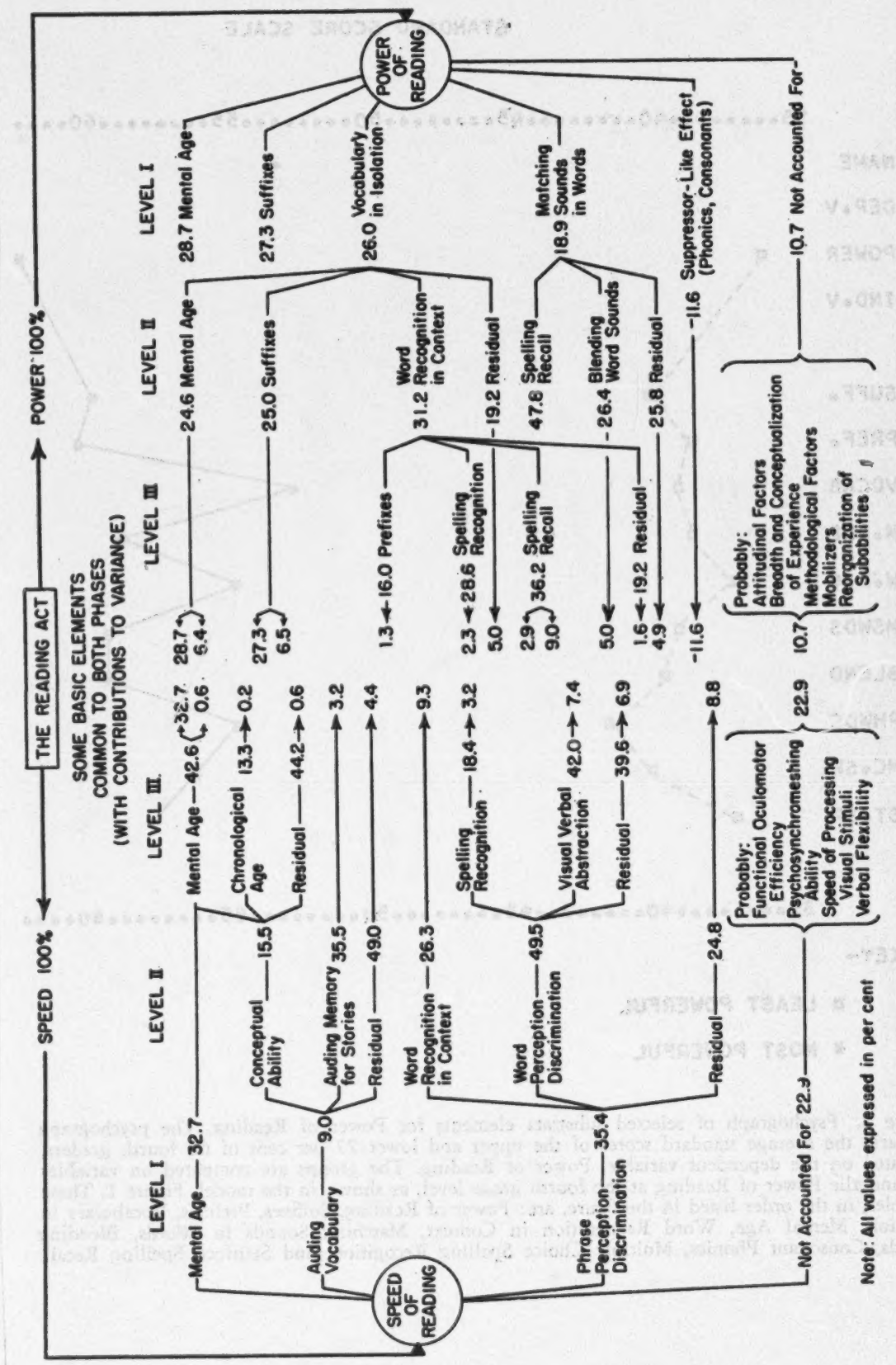



Figure 1.--FLOW CHART TO SHOW THE RESULTS OF THE SUBSTRATA ANALYSIS OF SPEED AND POWER OF READING AT THE FOURTH GRADE LEVEL H. Singer, 1960

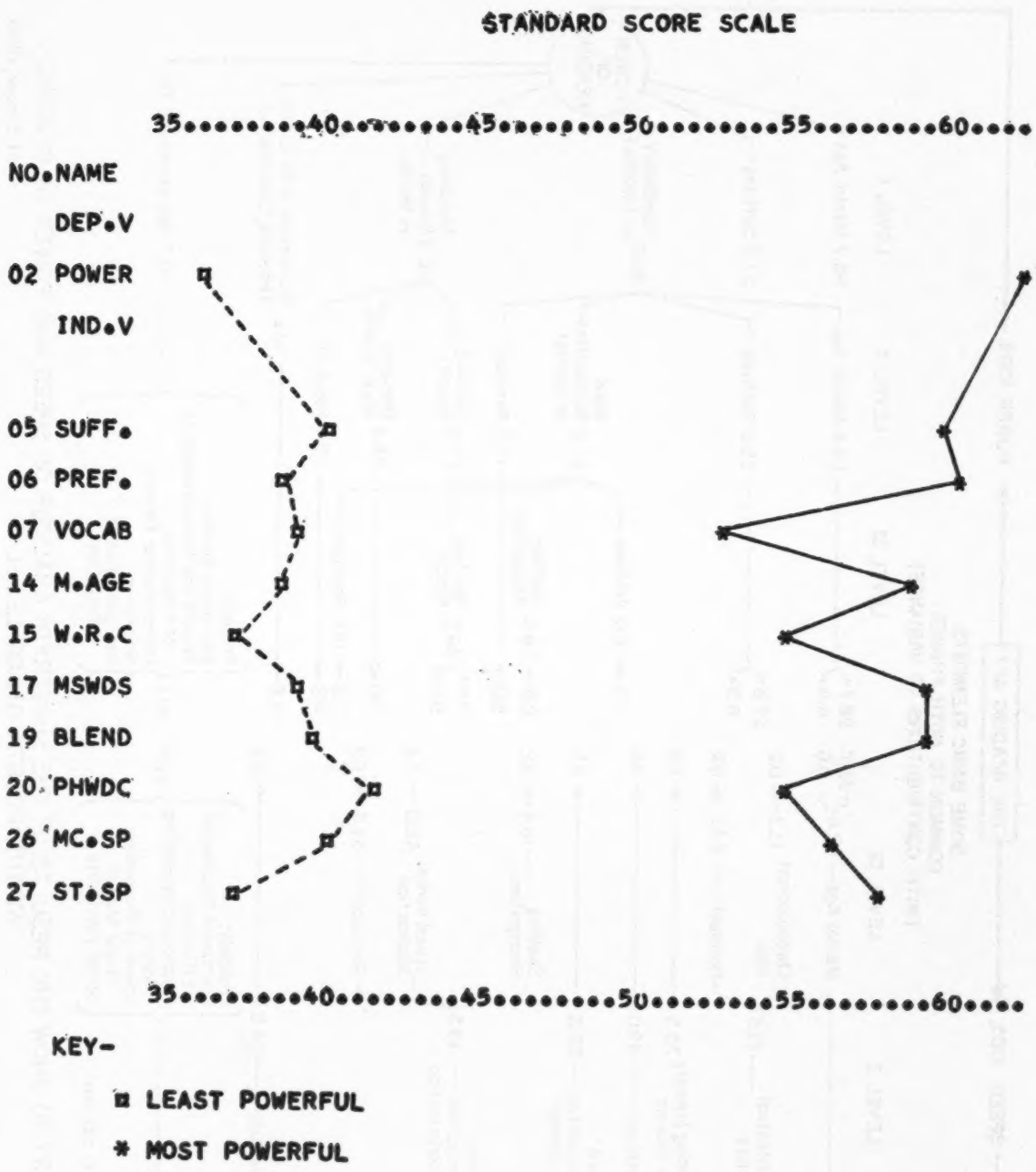



Figure 2. Psychograph of selected substrata elements for Power of Reading. The psychograph compares the average standard scores of the upper and lower 27 per cent of 60 fourth graders, separated on the dependent variable, Power of Reading. The groups are compared on variables that underlie Power of Reading at the fourth grade level, as shown in the model, Figure 1. These variables, in the order listed in the figure, are: Power of Reading, Suffixes, Prefixes, Vocabulary in Isolation, Mental Age, Word Recognition in Context, Matching Sounds in Words, Blending Sounds, Consonant Phonics, Multiple Choice Spelling Recogition, and Stanford Spelling Recall.

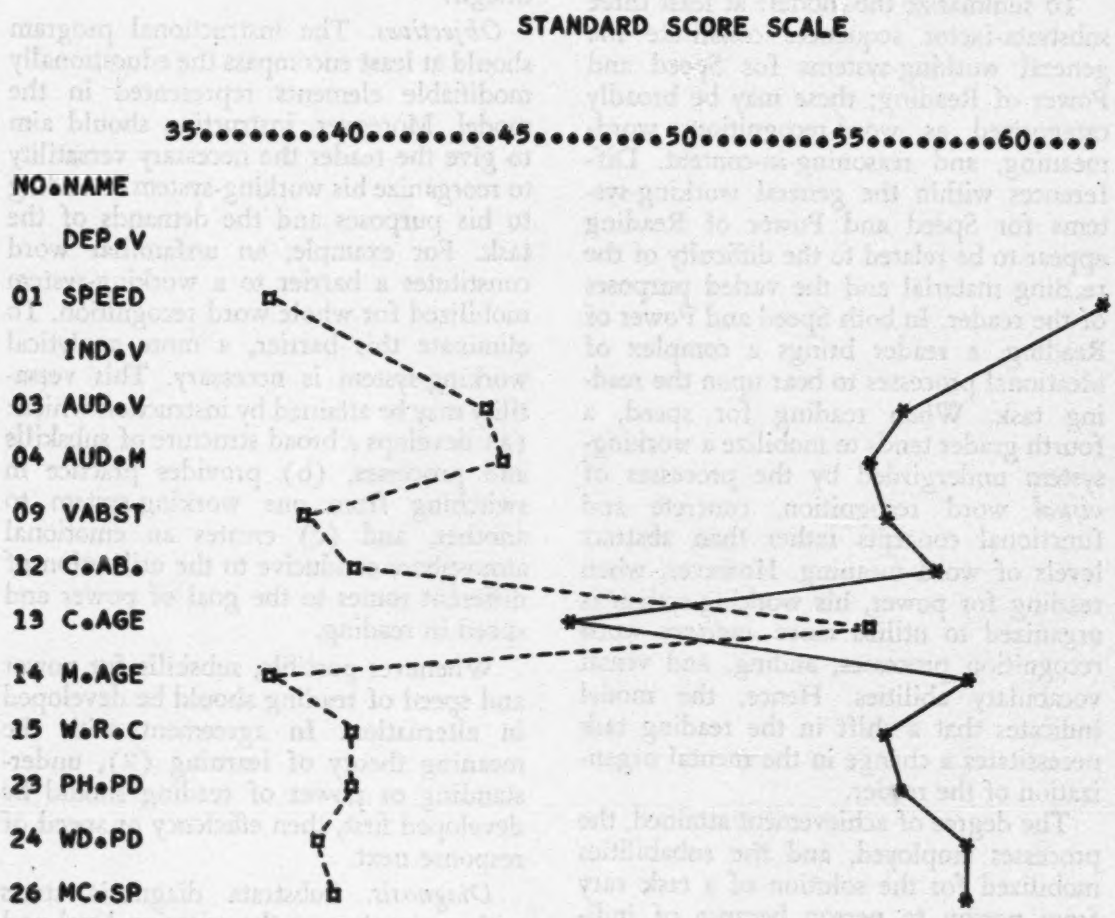



Figure 3. Psychograph of selected substrata elements for Speed of Reading. The psychograph compares the average standard scores of the upper and lower 27 per cent of 60 fourth graders, separated on the dependent variable, Speed of Reading. The groups are compared on variables that underlie Speed of Reading at the fourth grade level, as shown in the model, Figure 1. These variables, in the order listed in the figure, are: Speed of Reading, Auding Vocabulary, Auding Memory for Stories, Visual Verbal Abstraction, Conceptual Ability, Chronological Age, Mental Age, Word Recognition in Context, Phrase Perception Discrimination, Word Perception Discrimination, Multiple Choice Spelling Recognition.

making inferences, or, in short, for reasoning-in-context.

To summarize the model: at least three substrata-factor sequences constitute the general working-systems for Speed and Power of Reading; these may be broadly categorized as word-recognition, word-meaning, and reasoning-in-context. Differences within the general working-systems for Speed and Power of Reading appear to be related to the difficulty of the reading material and the varied purposes of the reader. In both Speed and Power of Reading, a reader brings a complex of ideational processes to bear upon the reading task. When reading for speed, a fourth grader tends to mobilize a working-system undergirded by the processes of *visual* word recognition, concrete and functional concepts rather than abstract levels of word meaning. However, when reading for power, his working-system is organized to utilize more *auditory* word recognition processes, auding, and visual vocabulary abilities. Hence, the model indicates that a shift in the reading task necessitates a change in the mental organization of the reader.

The degree of achievement attained, the processes employed, and the subabilities mobilized for the solution of a task vary from person to person because of individual differences in: (a) capacities, rate of maturation, and level of subabilities; (b) method, sequence, and scope of learning; (c) experiences and range of resulting ideas; and (d) temperament, motivation, and values. These differences are manifested in the kinds and relative amounts of subskills which each individual mobilizes into his working system. However, there is more than one route to the goal of success in reading; two individuals may attain the same degree of achievement by means of qualitatively and/or quantitatively different organizations of working-systems.

## Theoretical Design for Teaching Reading

The model provides the teacher with a "cognitive map" of "what-leads-to-what" (30) in the general working-system for attainment of speed and power of reading at the fourth grade level. The insight gained from this cognitive map enables the teacher to formulate the following design:

*Objectives.* The instructional program should at least encompass the educationally modifiable elements represented in the model. Moreover, instruction should aim to give the reader the necessary versatility to reorganize his working-system according to his purposes and the demands of the task. For example, an unfamiliar word constitutes a barrier to a working-system mobilized for whole word recognition. To eliminate this barrier, a more analytical working-system is necessary. This versatility may be attained by instruction which: (a) develops a broad structure of subskills and processes, (b) provides practice in switching from one working-system to another, and (c) creates an emotional atmosphere conducive to the utilization of different routes to the goal of power and speed in reading.

Whenever possible, subskills for power and speed of reading should be developed in alternation. In agreement with the meaning theory of learning (2), understanding or power of reading should be developed first, then efficiency or speed of response next.

*Diagnosis.* Substrata diagnosis starts with a symptom at the criterion level and proceeds through the relevant substrata levels to discover whether there are causal deficiencies in the underlying elements.

For general evaluation, an individual's profile of substrata elements may be compared with psychographs for most powerful vs. least powerful and fastest vs. slowest readers, Figures 2 and 3, respectively. These psychographs indicate that, in general, subabilities tend to be evenly developed. Therefore, a significant departure from the generality may be attributed to a differential in methodological emphasis or intra-individual variation in a learner's capabilities, or some interaction of these causal factors.

Processes in reading should also be evaluated because two individuals may attain the same level of accomplishment, but one individual may do so by a more mature process than the other (1). In general, readers develop through a gradient-shift in modal dominance from

kinesthetic to auditory to visual perception (12). To progress through this sequence, an individual has to acquire the necessary response repertoire and learn to reorganize his "habit-family-hierarchy" (19) of working-systems so that the visual modality may, in fact, become dominant. Speeded practice in formulating and reading to answer questions (8) may not only effect this reorganization, but also enhance reasoning-in-context.

*Subgrouping.* Subgrouping should be based not only on degree of achievement in the major criteria, Speed and Power of Reading, but also on level of performance in each of the subcriteria and their specific underlying elements. Some individuals, however, may deviate so markedly from the group that models at other grade levels would be more suitable for their instructional designs.

*Development of word recognition ability.* Although basal readers implicitly instruct beginning readers to rely upon memorization for word recognition, students apparently learn to utilize higher mental processes because cognitive factors do enter into word recognition abilities (20, 29). To facilitate such use of higher mental processes, materials could be organized for teaching pupils to conceptualize word recognition responses. For example, after teaching some sight words, the teacher could group these words according to a common kinesthetic, auditory, or visual perceptual element, and instruct children to perceive, abstract, and generalize this common element. Words which do not contain this element could serve to limit the generalization, and, perhaps, help the child develop necessary versatility in word attack. Under similar conditions, transfer of training has been successful for spelling (6), and may be even more effective for word recognition. Thus, instead of learning a separate response for each stimulus word, students would gradually develop an adequate repertoire of "mediated responses" (24) to mobilize in varying combinations for recognizing any unknown word.

*Development of word meaning.* Both the formation of, and the appropriate response to concrete, functional, and abstract levels of word meanings (5, 25) may be developed by instruction in material graded according to these conceptual levels (3, 27). A variety of instructional material should also be devised for teaching other dimensions of a concept, such as span, clarity, richness, organization, and communicability (26, 31). Conceptual ability, however, is also dependent upon mental and chronological age, and upon organic and personality factors (31).

## REFERENCES


1. Brownell, W. A. "Rate, Accuracy, and Process in Learning," Abridged by Theodore L. Harris and Wilson E. Schwahn, *Selected Readings on the Learning Process.* New York: Oxford University Press, 1961, pp. 388-400.
2. Brownell, W. A., and Moser, H. E. "Meaningful versus Mechanical Learning: A Study in Grade 3 Subtraction." *Duke University Research Studies in Education,* No. 8 (1949).
3. Carner, R. L., and Sheldon, W. D. "Problems in the Development of Concepts Through Reading." *Elementary School Journal,* 55 (1954), pp. 226-229.
4. Durrell, D. D., and Sullivan, Helen B. *Manual for Durrell-Sullivan Reading Capacity Test.* New York: World Book, 1937.
5. Feifel, H., and Lorge, I. "Qualitative Differences in the Vocabulary Responses of Children." *Journal of Educational Psychology,* 41 (1950), pp. 1-18.
6. Gates, A. I. *Generalization and Transfer in Spelling.* New York: Teachers College, Columbia University, Bureau of Publications, 1935.
7. Gates, A. I. *The Manual of Directions for Gates Reading Survey.* New York: Teachers College, Columbia University, Bureau of Publications, 1953.
8. Gilbert, Doris W. *Power and Speed in Reading.* Englewood Cliffs, New Jersey: Prentice-Hall, 1954.
9. Gilbert, L. C. "Functional Motor Efficiency of the Eyes and Its Relation to Reading." *University of California Publications in Education,* 2, No. 3 (1953), pp. 159-232.
10. Gilbert, L. C. "Speed of Processing Visual Stimuli and Its Relation to Reading." *Journal of Educational Psychology,* 55 (1959), pp. 8-14.
11. Holmes, J. A. *Factors Underlying Major Reading Disabilities at the College Level.* Unpublished Doctoral Dissertation, University of California, Berkeley, 1948.
12. Holmes, J. A. *The Substrata-Factor Theory of Reading.* Berkeley: California Book, 1953. (Out of Print)
13. Holmes, J. A. *California Language Perception Tests.* Palo Alto: Educational Development Corporation, Revised, 1962.
14. Holmes, J. A. "Factors Underlying Major Reading Disabilities at the College Level." *Genetic Psychology Monographs,* 49 (1954), pp. 3-95.
15. Holmes, J. A. "A Substrata Analysis of Spelling Ability for Elements of Auditory Images." *Journal of Experimental Education,* 22 (1954), pp. 329-349.
16. Holmes, J. A. "Personality and Spelling Ability." *University of California Publications in Education,* 12, No. 4 (1959), pp. 213-292.
17. Holmes, J. A. "Personality Characteristics of the Disabled Reader." *Journal of Developmental Reading,* 4 (1961), pp. 111-122.
18. Holmes, J. A., and Singer, H. *Substrata Factor Differences Underlying Reading Ability in Known-Groups.* Final Report Covering Contracts No. 538, SAE-8176, and No. 538A, SAE-8660, U. S. Office of Education, 1961.
19. Hull, C. L. *A Behavior System.* New Haven: Yale University, 1952.
20. Kress, R. A. *An Investigation of the Relationship Between Concept Formation and Achievement in Reading.* Unpublished Doctoral Dissertation, Temple University, 1955.
21. Kuhlmann, F., and Anderson, Rose. *Manual for Kuhlmann-Anderson Test,* 6th Ed., Form E. Princeton: Personnel Press, 1952.
22. Laycock, F. "Flexibility in Reading Rate and *Einstellung.*" *Perceptual and Motor Skills,* 8 (1958), pp. 123-129.
23. Lubin, A. "Some Formulae for Use with Suppressor Variables." *Educational and Psychological Measurement,* 17 (1957), pp. 286-291.
24. Osgood, C. *Method and Theory in Experimental Psychology.* New York: Oxford University, 1956.
25. Piaget, J. "Principal Factors Determining Intellectual Evolution from Childhood to Adult Life." In *Factors Determining Human Behavior.* Cambridge: Harvard University, 1937, pp. 32-48.
26. Russell, D. H. *Children's Thinking.* New York: Ginn, 1956.
27. Serra, Mary C. "How to Develop Concepts and Their Verbal Representations." *Elementary School Journal,* 53 (1953), pp. 275-285.
28. Singer, H. *Linguistic Tests: A Battery for Elementary School.* Berkeley: University of California, 1956. (Mimeo.)
29. Singer, H. *Conceptual Ability in the Substrata-Factor Theory of Reading.* Unpublished Doctoral Dissertation. University of California, Berkeley, 1960.
30. Tolman, E. C. "Cognitive Maps in Rats and Men." *Psychological Review,* 55 (1948), pp. 189-208.
31. Zaslow, R. W. *Study of Concept Formation in Brain Damaged Adults, Mental Defectives and Normals of Different Age Levels.* Unpublished Doctoral Dissertation, University of California, Berkeley, 1957.

130.

Vol.5, 1960

## b. Through Methods and Materials

26. NILA BANTON SMITH

Never have methods of teaching primary reading been more varied. Never have materials been more profuse. Perhaps this variety and abundance are due to the generally recognized need for improving reading instruction and the earnest desire to find more effective procedures and mediums for meeting the exigency of this situation. Whenever a pressing need is felt by many people, numerous solutions are offered. Reading is no exception to this generalization.

### Individualized Instruction

Individualized instruction is probably the most discussed plan currently offered as a procedure for teaching reading more effectually. This plan, as it is usually carried out, combines and applies much of our modern information concerning child psychology: it is self-propelled, the child seeks that which satisfies him, and he works at his own pace. According to Willard C. Olson, seeking, self-selection, and pacing are fundamental concepts in child development.

Collections of trade-books constitute the most commonly used reading material from which the children make the choices. In some cases, however, th teacher includes reading texts in the sel choice collection of books.

The method is that of silent reading b pupils at their seats, plus individual or reading to the teacher. During the or reading conference, the child is given hel with unrecognized words, some compr hension questions are asked, and a recor is made of the child's progress and need Periods of individual or group practic on skills are usually provided.

Very little valid research has been cor ducted in regard to the effectiveness c individualized instruction. The studie that have been made are contradictory i their results, some indicate superior resul in reading achievement, others show n superiority over other methods. Many c them report an increase in pupil intere and teacher enthusiasm. Much more car ful evaluation of this plan is needed.

### The Structural Approach

Many linguists are now urging th structural approach to reading. Th emphasize the recognition of basic stru tural principles of word order as bein fundamental in learning the reading pr cess. They argue that at six, children u complicated sentences, speaking them i sentence patterns which they have learne They state further that many children books present the language in a "bal talk that is as unreal to the child as it to the adult.

Warfel and Lloyd[1] believe that th school should focus during the first fe months upon enlarging the child's "speec repertory" so that he can benefit by varie sense patterns .They also are convinc that reading proceeds best when th reader has mastery over both "ear-minde ness" and "eye-mindedness" so that th action of speech is readily visualized writing and so the response to visu stimuli in reading includes the necessa auding.

Gliessman[2] urges "sentence conditio

[1]Harry R. Warfel and Donald J. Lloyd, "The Str tural Approach to Reading," School and Socie June 8, 1957, pp. 199-201.

[2]David Gliessman, "Understanding in Reading Fr the Viewpoint of Sentence Psychology," The Readi Teacher, 13, No. 1, October, 1959, pp. 22-28.

ing so that students will not only recognize but will develop the habit of searching within the sentence for subjects, predicates, and their modifiers. To do this he must know something about the ways in which sentences are formed and organized."

Methods for utilizing the structural approach in teaching reading are just beginning to evolve. No doubt this concept holds much promise. Experimentation should be encouraged.

## Film and Television Approaches

Several schools are now experimenting with visual approaches to reading through the mediums of films and television.

One of the film approaches is described by McCracken[3] in his report of The New Castle Experiment. The materials in the New Castle method consist of a set of filmstrips, one to represent each lesson in the *Laidlaw* basic readers. The films are in color. A textfilm teacher's manual accompanies the films." The basic readers themselves, together with their manuals, are also used in connection with this plan.

The method is as follows: a film is shown in a darkened room. This film then is used as a center for presenting new words, teaching phonics, word structure, comprehension, and work-study skills. Following the film activities, children work by themselves with text in the readers or workbooks, as the case may be.

The author of this method claims that the New Castle experiment yielded very superior results.

The television approach is used most frequently in grades beyond the primary level, although there are a few places in which some primary reading is taught by televised procedures. The materials for such instruction are usually prepared by classroom teachers, often in conjunction with a studio teacher.

A typical method used is as follows: The classroom teacher takes a few minutes to introduce the lesson. Then the lesson is presented by television. Often this lesson is conducted by a television teacher, while the classroom teacher walks about the room giving needed assistance to individuals. Following the television presentation the classroom teacher conducts discussion and individualizes the group presentation.

While those who employ TV teaching report excellent results, I believe that none of them would advocate the exclusive use of TV in teaching reading. TV is looked upon as a supplement to other learning situations in reading instruction.

## New Phonic Methods

One of the most frequently recurring panaceas offered for improving the reading ability of individuals or groups is some new twist in the method of teaching phonics. Two of the most recent of these methods will be discussed briefly.

*Breaking the Sound Barrier*[4] is the latest of phonics methods to be dramatically heralded through the mediums of television and the press. The material for use in this method consists of a book to be placed in the hands of the child and a teacher's manual for the teacher. In the words of the author, the function of the book is "to put into the child's hand information and a method of analysis that he can use on his own."

The child's book consists of four parts: Part I. The Consonants; Part II. The Vowels; Part III. Techniques; and Part IV. Application of the Techniques. "The Method in Essence" consists of four steps stated as questions: "1. How does the word begin? 2. What are the vowels? 3. What do the vowels say? 4. What is the word?" The child is taught to follow these four steps whenever he encounters an unrecognized word.

In following the steps the pupil must make use of formal rules concerning vowels, digraphs, and so on. To quote from the manual, "The child is told again and again, 'Use the rule; then use your head.'"

While the idea of providing a self-help reference for children is a good one, the method itself calls forth some questions. Many educators would feel the use of formal lists of phonic rules and phonic terminology are inappropriate for begin-

[3]Glenn McCracken, *The Right to Learn*. Chicago: Henry Regnery Company, 1959.

[4]Sister Mary Carolina, *Breaking the Sound Barrier*, MacMillan, 1960.

409.

ning readers, or those in any of the primary grades. Psychologists would prefer that children would arrive at these generalizations as a result of many experiences rather than having a ready-made rule handed out at an early age for them to follow.

The Daniels and Diack[3] method developed by two reading specialists in England has received considerable attention in America. These authors call their method the Phonic Word Method. The "heart" of the method may be illustrated as follows: the child is introduced to a group of words, all of which begin with *t*, and is shown that the common letter has a common sound. At the time of this introduction of *t*, the pupil is taught to write the letter in manuscript, and he plays games and does exercises concentrating upon the *t* in words.

The material consists of a basic series of readers, *The Royal Road Readers*, together with a teacher's handbook and supplemental paper-backed miniatures containing stories for children to read. The vocabulary is rigidly controlled on the principle of graded phonic complexity.

Two studies are reported by the authors which indicate superior results of this method as compared with other methods.

The supplemental miniature booklets constitute a desirable feature of *The Royal Road Readers*. The letter sounds are taught in connection with word groups, which is a generally approved plan. Many American educators, however, would question the effect of a phonetically controlled vocabulary on promoting interest in reading and on general vocabulary enrichment.

## Materials Slanted Toward Individual Needs

I have referred to materials briefly while discussing methods, for, in most cases, methods and materials are tied together in one package. Perhaps, however, special mention should be made of some of the different types of materials and their particular uses in meeting individual needs.

All of the current basic reader series take into consideration the meeting o individual needs. Provision for differentia tion is evidenced in several different ways in carefully controlled vocabulary whic advances in small increments, in carefull planned skill development program which gradually extend in scope an sequence. Another provision is seen i the trend to increase the number of book in a basal series in order better to mee individual needs. This is particularl manifested in the first grade where it i not uncommon to have seven or eigh basic books. Then there are additiona language books, content books, paralle books, enrichment books, and so on—al extending the basic vocabulary and skills all aimed toward meeting individual dif ferences. Diagnostic tests are often pro vided for the teachers' use in assessin individual needs. The teacher's manual continuously point out procedures fo helping individual children. To sum up authors of basic texts have in recent yea become increasingly sensitive to the nece sity for meeting the needs of individual and are enriching and enhancing thei programs in many ways directed towar the realization of this goal.

Attractive trade books are being pul lished in legions, and are marching int classrooms by thousands. This is a excellent trend in terms of the goals c capitalizing on individual interests an stimulating wide reading. Perhaps th latest development in trade books in s far as school reading is concerned is th publication of many more easy boo intended for reading in the early prima grades.

Among the new materials, paperbac must not be overlooked. The paperback finding its way into schools, even at th primary level, and these books also a used in meeting individual needs.

## Conclusion

Reading methods and materials for u in differentiating instruction at the pr mary level is a large topic to cover in short a time. I hope, however, that th talk has at least served to point up th wide variation which exists at the prese time. This diversity is bound to increa in the future. What to do about it?

[3] J. C. Daniels and Hunter Diack, "The Phonic Word Method," *The Reading Teacher*, Vol. 13, No. 1, October, 1959, p. 14.

29.

First: if you are already using one of ne newer approaches which radically de- art from those of the past, and you are atisfied with the results—well and good. ut don't neglect to take a look at the thers. Some of them also may hold omething for you.

Second: if you are considering the nitiation of one of the innovations, in- estigate it carefully before deciding to ntroduce it. Try it out experimentally, valuate it objectively, arrive at your own onclusions in terms of its effectiveness in our own classroom with your own pupils.

Finally, let's take a look ahead. Each f the methods discussed has some good eatures. Some elements of each may rove themselves to be superior when orking with certain individuals. Should teacher be bound by just *one* method? hould she not be made acquainted with ll of them, equipped with material to se in teaching several of them, then left o her own judgment in regard to which ne or what combination of several to use ith certain pupils? Maybe this concept not entirely practical at the moment, ut should that deter us from at least ooking forward to such an ideal?

410.

131.

Vol. 10, 1965

## 2. Pupil Needs and Teacher-Pupil Relationships*

51.

ROBERT S. SOAR
Temple University

ON A PURELY subjective basis, I think most of us would agree that the kind or the quality of the teacher-pupil relationships which exist in the classroom ought to make a difference in the rate at which children learn to read—or learn any subject, for that matter. This general topic has an important place in the writing of educational theorists, and a modest amount of research on the relationship of these aspects of the classroom to learning in general has been carried out. However, there does not seem to have been a strong emphasis in research on teacher-pupil relationships and the development of reading skills, nor are the available results very clear cut in their conclusions.

Among the most relevant studies, Delacato and Delacato (1952) found that a permissive group environment produced growth in reading skills as well as more favorable attitudes with a group of children referred for remediation. More recently, Perkins (1965), in a study with fifth graders, found that teacher lecturing and criticising was related to loss in reading comprehension scores on the *California Achievement Test,* but growth in other areas. On the other hand, Medley and Mitzel (1959) found only a slight relationship between growth in reading and Emotional Climate as measured by the *Observation Schedule and Record.*

Work in other subject areas, and at differing levels suggests, however, that

*This investigation was supported in whole by Public Health Service Grants, No. 5-R11 MH 01096 and 7-R11 MH 02045 from the National Institute of Mental Health.

411.

interpersonal relations in the classroom do make a difference in the learning that goes on. These findings seem to indicate that a more structured and teacher-centered style of teaching hinders the learning of higher-level objectives; that direct teaching (which restricts pupil freedom) hampers geometry learning for "dependent-prone" pupils; and that a more formal and directed classroom hampers growth in creativity (which some writers have suggested is important in higher-level reading skills).

It may be that these various results can be integrated on the basis of other research findings that anxiety hampers complex learning, and apparently, the more complex the learning, the lower the level of the anxiety that will hamper it.

These researches from the educational area suggest that the environment in the classroom is important in determining the ease with which different kinds of learning take place, but that the relationship is by no means simple. Further support and clarification comes from the area of small group research (Fleishman, 1953) in which two independent dimensions were found to be important factors in determining the effectiveness of various groups. These were the nature of the control exercised over group members and the emotional climate of the group. Although it's not entirely clear, the studies reviewed above seem to be referring to counterparts of these same dimensions.

## Problem

This research, then, is a study of the development of reading and vocabulary skills in elementary pupils, in relation to the emotional climate and the teacher control which existed in the classroom.

## Procedure

The general procedure was one in which vocabulary and reading tests of the *Iowa Tests of Basic Skills* were administered in the fall and spring in 56 elementary classrooms, grades three through six. During the year, teacher-pupil behavior in these classrooms was observed using two observation schedules—the *Interaction Analysis* (Amidon and Flanders, 1963) and another schedule made up from items from several revisions of the *Observation Schedule and Record* (Medley and Mitzel, 1958, and private communication) and the *Hostility-Affection Schedule* (Fowler, 1962). Dimensions from these schedules which most clearly identified control and emotional climate were selected on the basis of a factor analysis. From each grade level, classrooms were then selected for study which represented the extreme combinations of climate and control, that is, direct control, high hostility; direct control, low hostility; indirect control, low hostility; indirect control, high hostility.

Direct and indirect teaching were defined in terms of what the teacher said when a pupil stopped talking. Direct control was made up of such behaviors as criticizing or giving directions; indirect, by accepting or clarifying pupil ideas, praising or giving encouragement, or accepting pupil feeling. The emotional climate dimension was made up of counts of verbal and non-verbal pupil expressions of hostility, and teacher verbal hostility.

## Results and Discussion

The results for growth in vocabulary were as hypothesized—indirect teaching produced greater growth than direct, classrooms in which there was greater expression of hostility produced less learning than those with warmer emotional climates, and the combination of indirect teaching and low hostility produced the greatest gain of all. Interestingly, growth was less in the fourth grade than any other, reminiscent of the "fourth grade slump" in creativity.

The results for reading were not so clear cut, however. Differences in emotional climate did not produce differences in reading growth, nor were there differences from grade to grade. Consistent with the findings for vocabulary, indirect teaching produced greater growth than direct. But the combination of indirect control and high hostility produced the greatest growth of all, followed by direct control and low hostility; with the other combinations producing less growth.

The question of why the results for reading differ from those for vocabulary is a perplexing one. If, however, we apply the principle of simpler learning being facilitated by moderate levels of tension which hinder more complex learning (as

412.

the studies on anxiety indicate), we would be led to infer that the learning of reading, as measured here, is a less abstract function. This is a difficult assumption to accept, and yet examination of the two tests makes this seem plausible—vocabulary items seem to deal often with abstractions (very few of the words are nouns, for example) whereas the reading items appear to deal with relatively concrete ideas. Perhaps a more abstract reading task would have produced results similar to those for vocabulary.

I would like to propose another distinction which may help to explain the differences—"inner-directed" vs. "teacher-directed" learning. I suspect that vocabulary is not so directly taught in the classroom as reading and is, as a consequence, a more "inner-directed" kind of learning. This raises the question of whether more complex, more abstract, higher-level kinds of learning are not of necessity more inner directed, rather than "outer" or "teacher-directed." Perhaps the really basic principle, then, is that learning which involves the child's own motivation and interest is the learning which is most affected by the nature of the classroom.

Perhaps these findings offer a pointing finger toward resolving some of the disagreements in past research. If more teacher-directed learning is facilitated by tension levels which hamper more abstract or inner-directed learning, then the same task studied in classrooms which differ in tension level will produce different results; and if tasks which differ in abstractness are compared, the results may well be reversed from classroom to classroom, depending on tension level.

Certainly these results in conjunction with the others, make clearer the enormous complexity of the classroom. They suggest that the most effective learning depends upon the tension the child feels, the emotional climate, and the teacher control present in the classroom, and that the optimum of each of these will differ with abstractness of the learning task.

Clearly, the results of the researcher have not yet made easier the classroom teacher's job; but it seems increasingly clear that if abstract, inner-directed learning is valued, it will be achieved best by indirect teaching and a supportive emotional climate.

## REFERENCES


1. Amidon, E. J., & Flanders, N. A. *The role of the teacher in the classroom.* Minneapolis (429 Plymouth Bldg.): Paul S. Amidon and Assoc., 1963.
2. Delacato, Janice F. and Delacato, C. H. A group approach to remedial reading. *Elem. Engl.*, 1952, 29, 142-149.
3. Fleishman, E. A. The description of supervisory behavior. *J. appl. Psychol.*, 1953, 37, 1-6.
4. Fowler, Beverly D. Relation of teacher personality characteristics and attitudes to teacher-pupil rapport and emotional climate in the elementary classroom. Unpublished doctoral dissertation, Univer. of South Carolina, 1962.
5. Medley, D. M., & Mitzel, H. E. A technique for measuring classroom behavior. *J. educ. Psychol.*, 1958, 49, 86-92.
6. Medley, D. M., & Mitzel, H. E. Some behavioral correlates of teacher effectiveness. *J. educ. Psychol.*, 1959, 50, 239-246.
7. Perkins, Hugh V. Classroom behavior and under-achievement. *Amer. Ed. Research. J.*, 1965, 2, 1-12.


413.

132.

Vol.7, 62



## 7. Teaching a Reading Lesson in the Intermediate Grades

J. E. SPARKS

The teaching of a reading lesson in the intermediate grades of the elementary school provides an excellent means to reinforce the basic reading instruction of the primary years, to introduce some of the refined study skills, and to lay the groundwork for coping with the heavy quantity of reading coming along in junior and senior high and in college.

Children in grades four, five and six are in crucial years in the development of certain reading and study skills which they will need for the remainder of their school life. Proper teaching at this point, with follow-up reinforcement grade by grade, will pay dividends. It is much easier to instill the proper skills at the beginning than to wait until senior high or college years, when bad habits are so firmly entrenched that many students require much remedial instruction to break them before forming good ones.

Whether he applies them to literature, social studies, or science, the teacher can use some basic principles of skill instruction that the writer of this paper summarizes as WRMR — Warm-up; Read; Make Study Notes; and Review.

### Warm-up

One possible motivating factor to interest students in the reading and study processes is to relate those processes to athletic skills, such as those in football, baseball, or swimming. This type of reference particularly appeals to boys, who often carry the heaviest "chips" about reading and study.

The baseball, football, or swimming coach would not pit his team against an opponent without some instruction in techniques—without some drill and practice before a match — or without some warm-up sessions just prior to the contest itself. The intermediate grade teacher of reading should consider himself the "literature coach," the "social studies coach," the "science coach," and the class his team. Thus, he would furnish his team with some warm-up practice before going into the contest involving the reading, which he trusts will be performed in a more efficient manner than that of any preceding assignment. If the students can, at the same time, regard their academic teacher as their "coach," they may take a more vital interest in their studies.

In this warm-up session, the students should do the following:

1. Note the author and title of the textbook containing the assigned reading.
2. Use the table of contents to find the assignment rapidly.
3. See a relationship between the title of the assigned reading and the remainder of the book.
4. Read an introduction, if there is one.
5. Quickly survey boldface or italicized headings, pictures, maps, charts, tables, graphs.
6. Turn headings into questions by asking *Who, What, When, Where, Why,* or *How.*
7. Following this survey-question technique, try reciting aloud the ideas noted. Another possibility in recitation is to jot down on a notebook sheet the major headings—in order to see the over-all organization of several pages of printed material at one glance.
8. During this warm-up, the student may have ready a pack of three by five cards in order to record on each any words or terms that puzzle him. Later, he might make vocabulary flash cards of these—if the reading or context does not reveal understanding of the words.

For the longest of chapters assigned in the intermediate grades, this warm-up should take no more than five minutes; in fact, two or three minutes will generally pay dividends once the student becomes proficient at this skill. Such warm-up now has the reader much better prepared for the next step: thorough understanding of the reading assignment.

### Read

With an active warm-up, the student is

414.

now ready for the serious reading. The distractions of previous activity are disappearing, and concentration upon the task at hand is increasing. With the organization of the entire assignment in mind, the student is better equipped to follow the author's presentation in a more unified manner.

At this point, the reader may have found some aspect of the chapter to interest him. He should be able to spot key words and phrases with more ease. He has been building into himself the qualities that will enable him to remember the content of the reading more thoroughly and for a longer period of time. These will become important when the time comes to study for a test on the material.

When you meet a stranger for the first time at a party, you usually have no point of reference to begin a conversation. But as you chat informally with this stranger, you learn about his background, his interests, his occupation. And the more you talk, the more familiar becomes this stranger. The same experience can occur as the student becomes intimate with the authors of the textbooks he uses in school. Spending time knowing an author in the early chapters of his book will make reading his later chapters much easier.

An active warm-up can enable the student to read the assignment much more rapidly than he might otherwise have done. The teacher is automatically developing sound speed-reading techniques that will help the student to adjust his rate of reading to fit the purposes of social studies, literature, or science.

## Make Study Notes

Once the reading has been completed, the wise student makes a set of study notes on the assignment—notes patterned upon the organization of the author but made in the words of the reader. Note the use of the term, *making notes*. The writer feels that this is the *real* skill—that any student can readily master *note-taking*.

These are the student's own study notes —to be used in studying for class discussion, for a quiz on the assignment, or for an eventual test on a unit. For best future use, they should possess certain characteristics:

1. Legibility (for reading tomorrow, next week, or next month).
2. Proper labeling of subject and date.
3. Adequate indentation of details shown in relationship to the main ideas.
4. Brief wording or phrasing (not copying of sentences from the text).
5. Writing *after* the reading of a section.

The student must learn to read through a section (such as that following a boldface heading) *before* he makes his notes. Otherwise, he may *copy* too much in the original words—and be no better off than if he had just read the material.

The student may often protest at the beginning that a first reading through warm-up, a second complete reading, and the necessary third reading for making the study notes consume too much time for one assignment—that he has much other reading to do. The writer has had students keep progress records of their work over several weeks. They have gone from less than one hundred words a minute for study time (including both the reading and the note-making) to more than two hundred and three hundred words per minute—and greatly improved their comprehension at the same time!

The note-making adds another sense to the study process—that of touch. Up to this point, the student has used sight, speech, hearing. With four senses operating for him, the student will remember more and remember it longer—thus making him much more efficient.

## Review

After making his study notes, the student should read them over rapidly, again solidifying the content of the assignment more firmly in his mind. This quick review will also pinpoint aspects of the reading that were especially difficult. For those he should make references back to the text—but only for those. The oral recitation of review is more efficient than the constant re-reading that too many students do.

The good student is also the one who will independently survey other books, magazines, and reference materials to build upon the content of the assigned text. Extending knowledge beyond the assignment and finding ways to relate it to other work in the classroom will make a more efficient student.

## Conclusion

If the would-be swimmer just sits in the pool passively, he will never learn to swim. He needs to get involved actively—to move arms and legs and body in the proper ways. He needs to "fight" with it.

Likewise, just moving the eyes over a reading assignment, turning pages, and noting all of the words will mean absolutely nothing. Often, a student reports to his teacher, "I read every bit of the assignment, but I didn't understand it." He is being honest in his comment. But what he has mistakenly done is to read every *word*. He hasn't read a single *idea*.

Acquiring the full comprehension of the main ideas and the related details will come from active study — by warm-up, proper reading, note-making, and reviewing.

133.

### b. The Relationship Between Patterns of Reading Instruction and Reading Achievement in the Primary Grades

87. FLORENCE SPERRY

So far, in the history of reading instruction in the United States, no unanimity of opinion has existed as to the best techniques by which to teach reading. The very complexity of the reading process itself has seemed to invite controversy over the pattern of reading instruction which is most effective, and the teaching materials which are most appropriate for helping youngsters in their first experiences with written words.

The failure of specialists in reading instruction to find a common approach to the problem is a matter of concern to teachers and to parents, for the effective control of the reading instructional experiences of each pupil in the primary grades remains the very heart of the elementary school process. The educator can ill afford to use guesswork as he guides the children in their first reading experiences. He must know what approach he will use, and why. He must be able to identify the reading pattern or reading instruction orientation he will use and recommend.

The identification, analysis and determination of relative effectiveness of two current patterns of reading instruction formed the subject matter of this report.



orientation. Where there was substantial agreement among jurors, *i.e.*, at least 80 per cent consensus, it was accepted as being characteristic of the particular reading pattern. It was also possible to identify those items that were not characteristic of basal or individualized reading patterns.

Statistical treatment of the diagnostic items yielded a total of 35 different items which could be interpreted as discriminating significantly between basal and individualized reading patterns.

Each of the 145 teachers filled out a questionnaire and was given both a basal and an individualized score, using the reading instruction scale devised from the jury responses. The scores were converted into an index of instructional bias, using the following ratio:

$$\text{Index} = \frac{\text{Basal score minus Individualized score}}{\text{Total score (non-algebraic)}} \times 100$$

A distribution was made of the resulting scores earned by the teachers, and this was easily converted into a scale in terms of which each teacher's reading orientation could be determined. Use of this scale permitted a precise identification of instructional bias. It also made possible a determination of the reading instruction program in which each pupil had participated, by the instructional bias of each of his first, second, and third grade teachers.

Comparisons could then be made between groups classified according to three different variables: (1) mental ability, (2) socio-economic status, and (3) reading achievement. The data were examined for salient trends in the relation between pupil achievement in reading and the basal or individualized character of his reading instruction.

#### Major Findings

The major findings of the study are summarized briefly as answers to the questions posed for the investigation.

1. *Is there a significant difference in the measured reading achievement of third-grade children whose primary reading pattern has been a basal text approach, and those whose pattern has been individualized developmental reading?*

A significant difference was found in the reading achievement of third-grade children, depending upon the pattern of instruction. The difference was markedly in favor of the individualized reading pattern, children classified in this category exhibiting superior reading achievement almost without exception. Children who had participated in the individualized reading pattern for two and for three years showed highly significant gains in reading achievement over those who had participated in two or three-year basal reading programs. One group of children who had had three years of individualized instruction was significantly superior to another group which had had one year of basal and two years of individualized instruction.

2. *Is there a significant difference in the measured reading achievement of third-grade children who have had a basal text pattern and those who have had an unclassified pattern?*

An intermediate classification was identified which included children whose teachers, as rated on the scale, exhibited no strong bias toward either basal or individualized reading patterns. Children who had experienced a reading orientation which was primarily basal exhibited no significant differences when compared with those in the "unclassified" category. No significant differences were found for groups which had had an unclassified reading orientation; but the unclassified groups were superior to those whose reading instruction followed the basal pattern. In fact, third-graders who had had two or three years in the unclassified category were superior to groups which had had two or three years in the basal pattern. Nevertheless, they were significantly below the individualized three-year groups in reading achievement.

3. *Is there a significant difference in the measured reading achievement of third-grade children whose primary reading pattern was unclassified, and those whose reading pattern for the first three years was individualized?*

No significant differences were found for groups which had experienced primarily an unclassified reading pattern. The individualized pattern over a three-year period, however, produced higher reading achievement than when combined with one of the other orientations. Groups which had had two years of one orientation and one year of another exhibited no significant differences between individualized and unclassified patterns. When comparing groups with a three-year emphasis, however, the unclassified pattern was significantly lower than the individualized.

4. *Is there a pattern of reading instruction which yields significantly*

416.

*greater third-grade reading achievement?*

One group (we will call them the "equalized" group) of 112 pupils had received one year of each orientation—basal, individualized, and unclassified. Here again, when comparisons were made between the four possible groupings, a significant hierarchy of achievement was observed, the individualized pattern being definitely superior to all others; the unclassified pattern being superior to the basal and equalized groups and the basal being superior to the equalized.

There is no question but that in this study the individualized pattern of reading produced significantly higher third-grade reading achievement.

5. *Is there greater reading achievement when more than one reading pattern is introduced at the primary level?*

Comparison of the major pattern groupings showed that the equalized group, whose numbers and IQ's were not significantly lower than the other groupings, were the least effective in producing reading achievement at the end of the third grade.

6. *Do children of varying socio-economic levels respond differently to certain patterns of reading instruction?*

The socio-economic variable in this study showed the basal group to be in the direction of the lower-middle and upper-lower strata, and the individualized group to be predominantly upper-middle. The data suggest that further investigation focusing on variant backgrounds at lower and upper socio-economic levels may determine more accurately the influence of socio-economic status and its corollaries of parental education and motivation on reading achievement.

7. *Do children of variant levels of measured intelligence respond differently to certain patterns of reading instruction?*

Control of the factor of mental ability was achieved by using the mean IQ's of the classes included in the study. The general range of IQ's for the several schools was slight. The distribution of mean IQ's was generally well equated for both reading patterns, the basal being 108.03 and the individualized 111.95, even though the sample had an average IQ of 110.49, well above the national norm. The relationship between measured intelligence and patterns of reading instruction was only partially determined, and further research is needed.

**Conclusions**

From the results of this study, the following conclusions were drawn:

1. The individualized pattern of reading achievement is superior to the basal reading instruction pattern when administered under conditions similar to those imposed for this study. The basal reading pattern is the least effective of the two instructional orientations. A predominantly basal pattern, however, is superior to an "equalized" pattern in which there is one year of each instructional pattern and one of an unclassified pattern.

2. Much criticism has been leveled at individualized reading instruction in such important areas as primary reading, promoting children's readiness to read, and the reading skills of word recognition, comprehension and research study skills. This investigation does not support such a point of view. In fact, the opposite was found to be true—the individualized pattern was significantly superior to the basal. Individualized reading instruction does provide for primary children's readiness to read and for the development of the reading skills of word recognition, comprehension, and research study skills.

3. Individualized reading instruction can be taught effectively by experienced teachers, and not necessarily by just superior teachers.

4. Individualized reading can be taught effectively by experienced teachers with average numbers of pupils (35.5), and with the materials available in school and district libraries and curriculum offices. The criticism that individualized reading, to be successful, must be taught by superior teachers to small groups of superior children was not supported by the findings; again, the opposite was true.

5. Imposition of a systematically controlled vocabulary in teaching reading to first-grade children undoubtedly fails to take into account the wealth of communications media with which today's children are surrounded. A richer vocabulary is indicated.

I suggest that those responsible for curriculum planning in the primary grades consider seriously the merits of the individualized pattern of reading instruction, and that it be considered not alone for pupils of superior intellectual and socio-economic endowments, but for children of all socio-economic levels and varying intelligence levels.

417.

134.

# COUNSELING AND GUIDANCE IN READING

## A. PRIMARY LEVEL

### 1. Guidance in Learning

RUTH STRANG
University of Arizona

JOANNE, WHO HAS attended nursery school and kindergarten and has above average ability, is not making due progress in the primary grades. What guidance should the primary teacher give?

This answer depends upon what is causing the underachievement. The causes may be physical, intellectual, emotional, or social; they are almost certainly multiple. She may be handicapped by uncorrected defects of vision or hearing; she may have a low-energy level, owing to malnutrition, sub-acute disease, or serious illness. Initial failure breeds further failure.

Numerous emotional factors may interfere with a child's school achievement. The withdrawn child prefers to live in a world of fantasy rather than in the real world. The hyperactive, aggressive child may rebel against reading. The neurotic child is distracted by his inner conflicts; he cannot pay attention to reading instruction. The "bilingual" child may not even understand what the teacher expects him to do.

The child's social relations with the teacher and with the other children also affect his success in learning to read. Said one bright fourteen-year-old boy who was reading on the third-grade level, "When I was in the first grade I didn't like the teacher." He quickly added, "The teacher didn't like me, and I had the same teacher for two years." A child who has not learned to get along with other children, or who has developed a general hostility, has difficulty in putting his mind on reading.

The teacher will note any situations in which the underachiever *does* put forth or *is* receptive to instruction and will try to create these conditions more frequently.

When the child is making no progress, the teacher will remind him of the project he did complete successfully, the approval he received, the satisfaction he felt.

When he makes even a small move in the right direction, the teacher will not wait until he has completed the whole assignment but will give him at once something that he can consider a reward. She will also encourage him to keep a simple objective record so that he can see the results he is achieving.

When he does something right—remembers a word she taught him the day before or reads a sentence well—she will praise that accomplishment. She will not pounce upon his every mistake.

Billy, who did well in the first grade, is getting lower marks in the second grade and is worrying about it. There are many possible explanations for this. He may have relatively little ability to deal with abstract tasks. The first-grade teacher may have emphasized rote memorization and concrete tasks that he could do. Now more reasoning is required and the words are becoming more abstract. He may need special guidance to bridge the gap between the concrete and the abstract.

On the other hand, Billy may be a bright child who has already learned to read and is bored by the group reading instruction. Reading is not rewarding to him. He has become disillusioned with reading and with school. The Denver experiment in teaching preschool children to read showed that the early reader maintained his advantage only when the first-grade teacher adjusted the program to fit his interests. Too many bright, socially competent children enter school with above average scores in reading but do not gain in reading ability during the year. They have had opportunities to go on errands and to help other children but have not developed good work habits or received the instruction in reading that they need in order to realize their potentialities. On the other hand, some chil-



418.

dren who were initially retarded in reading have markedly increased their initial achievement.

A psychiatrist who recognized the danger of putting too much pressure on children advised Billy's parents to ignore his low marks in the second grade. However, Billy may need not indifference but firm and skillful guidance. A certain degree of anxiety is prerequisite to learning. Although it is desirable to prevent the intense anxiety that disrupts learning, children need to develop the attitude that mistakes and failures are opportunities to learn.

Guidance has two interrelated aspects: guidance of the child as a person and the more specific guidance of the child as a learner. He needs both if he is to succeed in beginning reading.

Guidance has been defined as the process of helping every individual, through his own efforts, to discover and develop his potentialities for personal happiness and social usefulness. Similarly, guidance in reading is the process of helping every child, through his own efforts, to discover and develop his reading potentialities. Let us now consider each phrase in this definition of guidance.

### Guidance Is a Process

The environment is the source of much effective guidance; this kind is not verbal. The teacher guides by setting the stage for learning. She provides many stimuli: appealing books on each child's reading level *(3)*; interesting experiences for children to talk and write about; all sorts of materials for spontaneous self-expression —perhaps a typewriter or two.

The teacher also provides "a responsive environment," one in which the child takes the initiative and the teacher responds appropriately. This method was the principle underlying O. K. Moore's work with preschool children at Yale. When the child struck a letter on the typewriter, the investigator responded by saying the name of the letter.

The way in which the teacher responds to the child affects the child's ways of perceiving, thinking, and remembering. She may call his attention to certain likenesses and differences in letters and words, encourage him to get the meaning of a word from its context, or aid his memory by incorporating the new into a familiar pattern.

The teacher's response also affects the child's self-concept. Instead of saying, "Is that all you've finished," the teacher can call the child's attention to the progress he has made: "Why you've done more than half of it already!" Expecting too little of him tends to lower his level of aspiration; expecting the impossible undermines his self-confidence. Stepping in too soon to help him deprives him of the satisfaction of accomplishing the task himself. Delaying too long to give assistance allows him to develop feelings of frustration and inadequacy. By using "operant reinforcement"—rewarding any moves in the right direction—the teacher guides the child toward success in each learning task. The teacher utilizes the child's strengths in order to build a feeling of confidence and success. But she also corrects his errors and strengthens the areas in which he is weak, skillfully avoiding overemphasis on mistakes and failures.

Interaction among the children becomes increasingly effective as they begin to attach greater significance to one another than to the teacher.

In short, the ideal classroom atmosphere is one of children learning and growing, becoming more and more competent as readers and as persons.

There is, of course, a verbal aspect to the guidance process. The teacher guides through her questions and comments. Some of the teacher's questions direct the child's thinking in creative ways. For example, in science or social studies children can be encouraged to predict outcomes on the basis of their knowledge and experience and then check with the facts presented in their books. In reading a story, children can be encouraged to speculate on what will happen. What kind of characters will be in it? What kind of experiences may they have? How may the problem be solved? Was the solution you suggested as good as the one arrived at in the book? Why, or why not? By asking questions of this kind the teachers can encourage creative thinking in many reading situations *(1)*.

In oral reading the teacher may help

the child convey the meaning of the selection he is reading by suggestions such as these: "Read this paragraph the way the father would say it." "Say this as if you were talking to the father." "Read the next sentence the way the policeman would speak. He wouldn't say word by word, 'Why - did - you - take - that - bag - from - the - car?' He would say, 'Why did you take that bag from the car?' " The child's intonation will show whether he has got the meaning of a sentence. Following the teacher's example, the children begin to ask their own critical and creative questions.

Guidance is allied to skillful instruction. The teacher's attempts to build children's self-confidence and self-esteem will fail if she does not find methods by which they can learn. Experimental psychology is giving us more clues about the learning process. Without this knowledge we cannot teach effectively. Wittrock's experiment *(5)* suggests that the less intelligent college student tends to learn by recognizing similarities; the more intelligent, by noticing differences. Ausubel's work *(2)* suggests that one can facilitate comprehension by introducing in advance relevant concepts with which the child is already familiar; he can then relate the new ideas to his previous "hierarchical connative structure." Gagne outlined some steps for giving special verbal instruction before the reading of a selection: (1) identify what the student is to learn from the selection, (2) direct his attention to relevant parts, (3) recall relevant principles or concepts immediately before the reading, and (4) guide the thinking process by means of specific questions on each well-defined step in the reading-thinking process.

The other phrases in our definition of guidance need less elaboration.

### Helping Every Individual

The retarded readers tend to usurp the teacher's attention, often to such an extent that she neglects more able learners. In the primary grades the emphasis is clearly preventive and developmental. All pupils are given reading instruction in the regular classroom. Remedial groups are necessary only when the classroom teacher cannot help the children as soon as they begin to experience difficulty.

### Through His Own Efforts

From the beginning the child should take initiative and responsibility for his own learning. As we have already suggested, the teacher responds to the child's initiative in selecting his activities, in asking questions, and in using the methods of learning that are most effective for him. As the child imitates the teacher's method of guiding him, he learns to guide himself.

### To Discover His Potentialities

Diagnosis is essential to guidance. In any class, even in so-called homogeneous classes, the teacher finds children whose abilities in various phases of the reading process range from the bottom to the top. Murphy found that some of the very poorest readers had the highest scores in spelling, in the ability to do elaborative thinking from reading, and in knowledge of diacritical marks. "This means that the teacher cannot assume that children's instructional needs are the same just because their scores on achievement tests are alike" *(4)*.

By listening to a child read several graded paragraphs, the teacher can determine his general reading level and analyze his difficulties; moreover, it may reveal his concept of reading and his attitude toward reading and toward himself as a reader. This diagnostic information the teacher can use immediately. Starting where the child is, if she finds that he does not learn by one method, she tries another. Some teachers who are sympathetic with slow-learning pupils do not expect them to achieve; they do not try to teach them all they *can* learn.

### To Develop His Potentialities

This development is our aim in teaching reading. It can be accomplished by making appropriate responses to the child's initiative, by asking informal questions and offering comments that encourage him to read accurately, critically, and creatively, and by giving him specific verbal instructions for reading a given selection. By creating an atmosphere in which children feel they are learning and growing, the teacher helps them to become more and more competent as readers and as persons.

215.


REFERENCES

1. Artley, A. Sterl. "Implementing a Critical Reading Program on the Primary Level" in J. Allen Figurel (ed.), *Reading and Inquiry*. Newark, Delaware: International Reading Association, 1965, 176-178.
2. Ausubel, David P. "The Use of Advance Organizers in the Learning and Retention of Meaningful Verbal Material," *Journal of Educational Psychology*, 51 (Oct. 1960), 267-272.
3. Bushin, Mel. "Reading Guidance, What It Is," *Reading Improvement*, 3 (Winter 1966), 41-44.
4. Murphy, Helen A. "If We Teach, Children Learn," *Educational Horizons*, 44 (Spring 1966), 201-203.
5. Wittrock, M. C. "Set to Learn and Proactive Inhibition," *The Journal of Educational Research*, 57 (Oct. 1963), 72-75.


420.

135.

beginning or the end of the school year. Pupils who enter the program continue in it as long as the nature and difficulty of the content meet their needs and challenge their interests and abilities, yet enable them to have success.

**The Reading Skills Program**

The Reading Skills Program has two tracks as indicated by these School TV Guide entries.

9:15-9:30 Ch. 2 Reading Skills A
Miss Swauger. The goat will look for things with names that begin like goat. The dog will look for things with names that end like dog. What names can you help them find?

9:35-9:50 Ch. 2 Reading Skills B
Miss Swauger. Say your name. How many parts do you hear? How many vowel sounds do you hear? How many parts and vowel sounds do you hear as you say and listen to other names?

Each track is part of a sequential program of skills in word analysis and dictionary use. Lessons in each track are presented twice weekly.

In response to requests by first grade teachers, a sequence of lessons in Reading Skills A telecast earlier in the year is repeated. Beginning at mid-year, a repeat telecast is made once weekly.

The lessons of Reading Skills A begin with readiness skills and progress through sequential skills involving the consonants, consonant digraphs and blends, structural analysis, dictionary readiness, and the application of the skills in meaningful and simple context.

In Reading Skills B the lessons begin with vowels and continue with phonetic and structural analysis, syllabication and accent, use of the dictionary, and the application of the skills at advanced levels.

Fundamentally, the content of the Reading Skills Program is that found in a basal reader series. The televised presentation of this content makes use of original and adapted techniques and ideas. Effort is made to provide situations for practice in and mastery of skills in an approach that will aid and supplement the classroom instruction. The use of television in instruction provides unique approaches not possible in the classroom.

Each lesson is limited to the treatment of one concept only, except for occasional review of related concepts. To further the

***d. Use of Television: For Reading Instruction to Supplement the Developmental Reading Program in a County System***

154.

VELORA V. SWAUGER

Two reading programs are part of the direct instruction by television in the Washington County Closed Circuit Educational Television Project (The Hagerstown Project), Hagerstown, Maryland. One program is devoted to instruction in basic reading skills. A second program provides practice for improvement in reading rate and comprehension.

The telecasts are planned to supplement and reinforce the developmental reading program in the classroom and are offered as a special service to some eight thousand pupils in grades one through six in twenty-nine television-connected schools.

**Participation in the Programs**

Participation is a matter for decision by the classroom teacher. An entire class may participate as a group. Selected pupils may form one or more groups in a given classroom or join similar groups in a designated viewing area.

Nearly all pupils participate in one or both programs at some time during the year. Some pupils enter at the beginning, others at mid-year, still others near the

skills of word perception, experiences in the skills sequence of listening, seeing, speaking, reading, and writing are woven into the lesson.

Many materials and methods are used to catch the interest of the pupil and to involve him in a personalized learning situation. Motivational effects are achieved through the use of puppets, film and filmstrip clips, animated objects, slip and pull cards, rear screen and transparency overlays, magnets and flannel boards, games and puzzles, camera and lighting effects, and numerous other aids and techniques.

These devices and procedures encourage pupil participation through listening, seeing, imitation, imaginative play, application, and testing situations.

The reading skills lessons require little preparation for or follow-up by the classroom teacher. Before the telecast, the TV Guide may be read and discussed, the previous lesson or lessons may be reviewed, or the information known about the lesson may be recalled. After the telecast, pupils may apply skills and understandings in activities associated with the developmental reading lesson, spelling and other word lists, illustrated booklets and charts, word games, recordings, and original ideas.

#### The Controlled Reader Program

The two-track Controlled Reader Program is presented twice weekly.

9:15-9:30 Ch. 2 Controlled Reading A
Miss Swauger. "A Walk in the Woods"
Billy takes a walk in the woods. He finds someone who needs help. Does he help? What does he do?
9:35-9:50 Ch. 2 Controlled Reading B
Miss Swauger. "The Best Kite"
Roman Walsh flies his kite across the deep gorge of the Niagara River. Why is this an important event in our history?

In content difficulty, Controlled Reading A ranges from first grade level through easy fourth grade level, and Controlled Reading B ranges from third grade level through the level of easy seventh grade.

The preparation for the lesson is left to the judgment of the classroom teacher. Vocabulary development is approached in a variety of ways. Through the use of the children's experiences, their independent reading activities, and the TV Guide entry, readiness to read is developed.

The studio teacher introduces the reading selection and motivates the participants to read with purpose.

In the classroom, each pupil reads from the television screen as the rate-controlled continuous reading selection is projected, with left-to-right control in a beam of guided light, for a period of four to five minutes.

Following the reading, while still under the direction of the studio teacher, each participant checks his comprehension and then records his rate of reading and his comprehension score on his individual TV Reading Progress Record. Types of comprehension exercises used include selection, true-false, completion, sequence, organization, and association.

After the telecast, the pupils may continue vocabulary study, discuss the reading purposes and content, identify the information gained, organize ideas and events, express their understandings through creative activities, or extend their interests to related content. From time to time, checks are made to determine growth and transfer in reading rate and comprehension in other situations.

#### The Teaching Team

In the interest of ongoing improvement and increased effectiveness of the total program, the studio teacher and the classroom teacher function as a team.

The studio teacher plans, writes, and produces the televised lessons. The studio teacher prepares the advance materials which include essential information about each lesson in the Teacher's Guide Sheets, entries in the School Edition of TV Guide, and forms for records.

The classroom teacher guides the pupils in the readiness and follow-up activities, and when necessary, the participation activities for each lesson. The classroom teacher appraises individual lessons and keeps the studio teacher aware of their strengths and weaknesses through the use of the feedback card.

Classroom visits and casual contacts with the pupils and the classroom teachers give the studio teacher insight into the value and use of the lessons.

Representative classroom teachers and the studio teacher hold monthly meetings

for the purpose of evaluation of various aspects of the program.

The classroom teacher indicates on a monthly participation report the number of pupils working in one or more tracks of the program. At year's end, each classroom teacher is given the opportunity of expressing opinions and suggestions on factors in the total program.

**Evaluation of the Programs**

In the first year-end survey, teachers in grades one through six favored the continuance of the programs. About ninety-three per cent indicated that the Reading Skills Program was of considerable and much value; while seventy-five per cent indicated that the Controlled Reader Program was of considerable and much value.

The teachers' opinions that the skills program is a factor in improved spelling skills is partially substantiated by results of two informal spelling tests. These tests include phonetic and structural elements which are found in the Reading Skills Program. The median score for each of the primary grades tested was one year above the norm for the grade.

Provision for individual differences is made when the classroom teacher selects or adapts the telecasts to meet pupil needs, interests, and abilities. For example, upper grade pupils reading at lower grade levels participate with success in Controlled Reading A. On the other hand, one-fifth to one-half of all the participants in the Controlled Reader Program maintain satisfactory comprehension in material which gradually increases in speed and difficulty to two or more years beyond the difficulty level of their grade placement.

Pupils in the program appear to be motivated to apply skills, to extend their interests, and to read with concentration, speed, and understanding, in reading and other subjects, to a greater degree than was apparent before the televised reading instruction was initiated.

This televised instruction in reading by one studio teacher has met the need, in part, for special help in reading in approximately three hundred fifty classrooms in the elementary schools of Washington County.

These "findings" are based on opinion and sample evidence. An intensive evaluation of the effectiveness of instruction by television will be available in the fall of 1961, upon completion of the final research report on the Hagerstown Project.

423.

136.

Vol. 5, 1960

PART III

# Reading and Mental Health

## 1. In the Elementary Grades

### a. The Impact of Reading on the Personal Development of Children

SISTER MARY THEOPHEMIA, C.S.S.F.
(FELICIAN)

The early elementary school years are the golden era in the educational program. Before we consider the topic presented here, let us devote some thought to the aim of education in our American society.

The core of our culture is neither material wealth nor commercial or industrial progress but the human being; his complete development: social, emotional, moral, physical, intellectual and spiritual. All that we do must be directed toward the attainment of that goal. Yet, at times, we fear lest the numerous extra-curricular activities tend to pressurize the individual and bring frustration to him, where satisfaction and joy were intended.

Who of us has not heard the statement that the child's first teachers are his parents? That his first school is the home? Environment plays a very important role in the educational growth of the child. Readiness for learning, willingness to participate, are factors that influence personal development.

The youngster's character traits and personality are built upon the relationships that he has with the members of the immediate family, parents and the home circle through social interaction. The neighboring community, its economic status, and educational interests and facilities exert a tremendous influence upon his interests.

Those of us who devote ourselves extensively and intensively to children are cognizant of the uniqueness of each individual. No two persons are alike, consequently their abilities and capacities differ. In lieu of this, we must cautiously guide the individual child in his reading. Books have always been a source of information, comfort, and pleasure for those who know how to use them. Children seldom just chance upon a book of interest to them. They must be helped either directly or indirectly as the case may be. "Free, unguided reading is not the easy solution to the development of reading interests that some have thought."[1]

We teach children to read and then encourage them to read to learn. Children learn to read not as an end in itself, but as a means to an end—as a way to find understanding, information, happiness. Artley in *Your Child Learns to Read* says: "All through his life a child grows *in* reading as he perfects his ability to identify words and interpret the meaning of what he reads. All through his life a child is growing *through* reading as he gleans ideas, gathers experiences by means of the printed page."[2]

Reading and the developmental traits are a two-way channel in the mental growth of children. Their characteristics, their needs, and their activities at various age levels influence their reading in regard to what and how they are taught. On the other hand, the reading that children later pursue together with the correlated activities influence their personal development. New interests are aroused, new projects undertaken, and new adjustments are made.

The earliest experiences of the children are those that they encounter at home and in their immediate neighborhood. They have become somewhat acquainted with several community workers and their work, with certain common pets and animals. They learn their first lessons of love at home. Every human being wants to love and to be loved. He who feels rejected by his own family may be inclined

[1]Bertha Handlan, "The Fallacy of Free Reading as an Approach to Appreciation," *English Journal*, 35, April, 1946, pp. 182-88.
[2]A. Sterl Artley, *Your Child Learns to Read*. Chicago: Scott, Foresman and Company, 1953.



424.

to lavish abnormal amounts of love even upon a stray dog. Children readily provide substitutes for what may be missing in their own lives. At home too they become familiar with the radio and television. They know when their favorite programs will be on and how to dial the correct channel. They can listen to nursery rhymes, poems, or stories that as yet they cannot read for themselves. Older members of the family not only may but should read to the youngsters. Books like Anderson's *Fairy Tales,* Aesop's *Fables, Mother Goose Rhymes* satisfy the child's craving for personal happiness and social approval. The feeling of security begins as the youngster is fondly cuddled in the loving arms of his mother or father, and at once he correlates security, love, and comfort with family living. The pleasure that the child experiences as a result of the interpretation of the story is a forerunner to the delight that eventually reading for himself will bring. Reading aloud to children is assumed to be a good practice for other reasons also. Often the style of the author is what makes the incident funny or stirs the deeper emotions. Simply telling about it may lose much of the original feeling of the writer. By the same token, the less capable readers or individuals who may lack vivid imagination, find that they fail to get the real feel of the story from their own silent reading. We realize the need for silent reading and its place in the reading program, but we must never permit that the art of oral reading succumb to the practice of silent reading or that it be lost completely. By the time the child comes to school he should be already bubbling with interests and curiosities that have been awakened.

If children are to develop a love for books and reading, it is essential that they have books of their own. Where the home cannot satisfy this need for the child, he should have early access to a nearby public library even long before he uses the classroom or school library. Children at all levels and ages should have an opportunity to engage in reading, independently and voluntarily, books of their own choosing. These always depict personal interests. What child does not enjoy *Heidi, Robinson Crusoe, Hans Brinker, The Greek and Roman Myths?*

"Statistics show that in the United States today there are nearly 35,000,000 children between the ages of six and fourteen. Teaching all these children to read and write offers the largest common task for education. Although there has been a steady decline in illiteracy in the United States, the 1950 census showed that there were still some ten million people who had less than the equivalent of five years of schooling. Educational authorities agree that instruction for literacy must continue even beyond school days." Gertrude Hildreth says that training children for universal literacy is the largest educational operation undertaken in the world's history.[3]

Reading extends, enriches, and goes beyond direct experiences. As the children read books that portray life in other lands, they begin to spin a web of mental impressions about these peoples, their modes of living, and so forth, and the chain reaction by which one reading influences another broadens their personal outlook on life and all that it entails.

Amy Elizabeth Jensen has made a very convincing appraisal of the qualities of the teacher who would give her pupils rich reading experiences: "(The teacher) one who knows books and has a contagious delight in them, who knows boys and girls as individuals with many-sided interests and enthusiasms, and who knows how to set the stage to bring books and boys and girls together."[4]

George Spache makes the same point very explicit: "The average teacher knows that she cannot expect children to develop real and enduring interests in reading unless she provides materials to promote these interests."[5]

The teacher must cautiously guide the reluctant reader to realize that reading can help him to be the kind of person he wants to be, or to improve his skill in the type of work he does. Naturally, these personal aims must be socially acceptable. The child

[3]Gertrude Hildreth, *Teaching Reading.* New York: Henry Holt and Company, 1958.

[4]Amy Elizabeth Jensen, "Attracting Children to Books" *Elementary English,* 33, October 1956, pp. 332-39.

[5]George Spache, *Good Reading for Poor Readers.* Champaign, Illinois: The Garrard Press, 1954.

learns the values of sharing, of honesty and fairness in play so that he is alert to practice these traits in his play. His self-concept of himself, his role in life, his methods for success are much more significant in determining his interests than the simple factors of age and sex. It is human for the child to seek recognition in society. Reading should afford him this opportunity. Interest not only helps to express the individuality of the person but also "integrates," as Spache says, "and organizes his behavior in relationship to some goal." *(Good Reading for Poor Readers)*

Bibliotherapy offers the opportunity to learn to know one's self better, to understand others so we can accept people as they are, rather than as we should like to have them. Reading further enables one to recognize his problems as portrayed in one or more characters in the story. It also provides examples of ways of facing and perhaps even solving similar difficulties to those troubling the reader. Thus the reader may be helped in handling some of his obstacles to success. Inspired stories of such people as Florence Nightingale, Father Damien, and the early pioneers fill the child with faith and courage, and with zeal to work and sacrifice for the good of others. Young readers can come to realize that security and happiness not only are social virtues, but they are also what every human heart craves for itself and others.

Due to the great speed and ease of communication in the world today, concepts of nations, continents, and planets no longer imply distance as in yesteryear, but nearness. This again presents a new horizon for increased reading and another means by which the child broadens his perceptions. Biographies of great men whether in science or sports, career books and the like, our great national and religious leaders will influence the reader in some specific way, which may not necessarily be evident till later years. *The Story of My Life* by Helen Keller is one that calls for mention in this respect. Jeanette Eaton's magnificent *Jeanne d'Arc, the Warrior Saint, Clara Barton* by Mildred Pace, and *Childhood of Famous Americans Series* are great favorites among children and portray outstanding charworth discussing with the reader.

acteristics of mind and heart, qualities

Reading affords an opportunity for distant traveling around the world. Here one need not make early reservations or bother with luggage or extra paraphernalia. All that one needs is his identification of travel, a well-chosen book, and then in the luxury of his easy chair in the favorite cozy nook, relax and enjoy peace and comfort as one glides away from his own restricted geographical and cultural environment to live with other peoples. Thus the reader can experiment vicariously with other kinds of personalities and develop keen social insights, concern for the welfare of others, and improve his public relations with them.

What about the emotional development? Do emotionally disturbed children benefit from their reading? Or shall we ask: Do children who have emotional problems usually have reading difficulties also?

Emotions play such an important role in the reading program that the teacher cannot segregate out of hand the emotional child who is a competent reader from the child who is a reading problem, but she must consider the characteristics and causes of both. Every teacher of reading—this includes every teacher in general—should recognize the emotional needs of the group she is teaching, know how to help children release their tensions, and understand how to achieve and maintain confidence, security, and mental health in the classroom. The maintenance of relaxed and pleasant teacher-pupil and pupil-pupil relationships fosters wholesome growth of personality, which is one of the primary aims of directed reading. Spache gives a very broad selection of graded titles to help meet all needs of all children in the book previously mentioned: *Good Reading for Poor Readers.* It follows that emotional difficulties and reading problems are not synonymous. Each requires separate consideration and separate treatment. It is true, there may be an overlapping of the one upon the other.

Some educators refer to reading as a three-fold process: as a source of information, escape, and relaxation. Books supply a means of peace and solace for children in times of stress, discouragement, or even personal loss. They provide suitable out-

lets for pent-up feelings; they enrich and deepen a sympathetic understanding toward others; they satisfy the love and desire for adventure. Books can awaken a sensitivity and an alertness to the beauty of literary expression found in a stanza of poetry or in flowing prose. In general, reading may improve the attitudes, feelings, and personal and social values. Finally, there is great inner satisfaction derived from being able to read and comprehend for oneself.

"Any conception of reading that fails to include reflection, critical evaluation, and the clarification of meaning is inadequate. . . . Reading not only includes recognition, comprehension, and interpretation, but also the application of the facts apprehended in the study of personal and social problems."[6]

Another type of personal development to consider is physical growth. Physical readiness must be taken into account at each level of reading. Physical fitness embodies the habits of healthful living based on an understanding of the body and its needs, and right attitudes toward everything that leads to good health. A child reads about a certain hero in sports and is challenged to value honor and not the goal of victory bought at the price of honor. Excellence of mind, character, and creative ability are fostered.

In this phase of consideration we must not forget the physically-handicapped. Some physical disorders cannot be completely overcome; others may develop in the course of the years. Consequently, the teacher must strive to help the child meet his defect and learn to live with it. If the child is physically disabled himself and reads about some youngster like himself, he may be induced to react to his life's situations as the character in the story and realize that there is always a bright future in store for him. There is always a glorious tomorrow to anticipate if we but learn how. It might be advisable for all of us to ponder the statement: "I complained I had no shoes till I saw a man who had no feet."

*Red Shoes for Nancy* by Marguerite Hamilton is a heart-rending story. Another one that comes to my mind is John P. Frank's *My Son's Story*. This is a true story of a personal tragedy of the fight for a baby's life; a story of the inspiring courage and faith of the parents whose infant son had cortical atrophy. He received his first care in one of our institutions in Buffalo and now as an older child is at St. Coletta's in Jefferson, Wisconsin.

The spiritual values are frequently enveloped within the true plot of the story as in the case just mentioned. In guiding the reading of children we should make a serious effort to point out the moral values in the particular selections. Innumerable lessons flow from the old adage, the golden rule. Reading offers a wealth of oportunities for the child to see how he can turn his ordinary actions of the day to a virtue. He learns to render service to his fellow-man in daily life. Children can at a very early age learn to do and say the nicest things in the nicest way by means of examples set forth in their reading.

In the reading on social studies the individual meets other good qualities that he may strive to acquire; qualities that make a true man. Prudence deals with diligence and co-operation in school activities. It suggests caution in choosing good companions, observance of the rules of health and safety, and weighing the advice given by others. The child has occasion to observe various ways of practicing justice in his reading in social studies, history and civics. Here he sees people rendering to others whatever is due them. Honor, obedience, submission, all these find their significant places in checking personal development. City ordinances and school rules and regulations offer unbounded spiritual values to the individual.

While all worthwhile reading tends to develop the child in one or more areas, the aspect of intellectual growth is ever present. There can be no reading without simultaneous development of the intellect. As the bright rays of the sun affect every individual in their scope in a different manner, so too, the thoughts presented by writers affect the readers in varied ways. The beauty of the gift of reading and comprehending lies within the secret realms of the mind and heart of the individual. The great wonders of the world may be expressed in flowing literary masterpieces; yet, even these may be inferior to the sublime thoughts that they arouse within the active intellect of finite man. And so, it is only natural that we seek higher spiritual values and turn to reading for those inspiring words that result in a heart to heart conversation with the Supreme Being.

Conclusions:

The heart of all education today, the central focus from which all learning flows is reading. To be effective, to bring forth fruits of success, reading must be based on the needs and interests of children. We no longer teach reading as an isolated subject. It is an integrated subject—a means toward an end. Our primary concern in education is the individual child, his needs and interests, his abilities, his purpose in life. With that end in mind we present various means as tools with which the child may successfully attain his envisioned goal. Reading is perhaps the most captivating means because it is *through, with,* and *in* reading that the child may attain complete personal development.

We aim to educate the whole man and this we can do by integrating reading with the personal needs of the child. Personality traits are observed as the child grows: socially, emotionally, morally, physically, intellectually, and spiritually. With reading as a basis for promoting this growth, the teacher may guide the child in his free reading and thus help bring about desired traits. Bacon said, "Reading maketh a full man" and we might add, with always new openings for continued reading.

[6]William S. Gray, "The Nature and Types of Reading," *The Teaching of Reading: A Second Report*, p. 26. *Thirty-sixth Yearbook of the National Society of Education*, Part I. Bloomington, Illinois: Public School Publishing Company, 1937.

Vol.7, 62

137.

# 14. Three Approaches to Teaching Reading

153.

ROACH VAN ALLEN

The heightened interest of the American public in reading instruction in our



schools has brought forth many proposals for "sure cures" for all the ills of the past and present. Some proponents of the "cure-alls" say they have quick and easy remedies; others veil their proposals in a sort of mysticism which is not unlike the rituals of witch doctors and medicine men for the cure of physical ills. At the same time, there are many thoughtful educators and dedicated professional societies that are devoted to the continued study of reading instruction. An example of how interested educators combined their resources to improve reading instruction is in the San Diego County Reading Study Project. This project is popularly known as "Three Approaches to Teaching Reading."

So many teachers and administrators in the San Diego area were interested in knowing a variety of well-balanced, basic approaches to teaching reading that the curriculum staff of the Department of Education, San Diego County, was asked to develop a research framework which would involve hundreds of children in a program which used more than one way of teaching reading. The five-year study which has grown out of the research project has probed into method, materials, and the learning process. Its basic point of view has been that no single approach to the teaching of reading can be *the best* and *only* solution. Its research framework attempted to include reading problems related to the diversity of our school population and our increased information concerning human growth and development.

As the research team investigated many so-called "approaches to teaching reading," it selected three for detailed study. The *basic reading* approach, the *individualized,* and the *language-experience* approach. Others were considered, but were rejected because they did not meet the criteria for a valid approach. They did not encompass a "way of thinking" which included stated purposes, materials, classroom organization, wide-range skill development, plan for direct teaching, extended enrichment program, provision for individual differences, and evaluation of skills and attitudes. In all cases except the three selected approaches, there were serious gaps in the proposed approaches which eliminated them from the study.

The three approaches were tested in many classrooms—not to compare one against another—but to give a team of observers an opportunity to observe the use of each approach over a period of time when all other approaches were ruled out. It was during the period of observation, careful reporting, and systematic analysis of data that the research team confirmed the hypothesis: *There are numerous effective ways of teaching reading in our schools.*

The research design of the San Diego County Reading Study Project required that participating teachers be rated high by district administrators, that they have tenure in their districts, and that they have a success record in teaching reading. In addition to having better than average teachers, the design assured an intensive in-service education program, the necessary materials for instruction, and administrative support for the three approaches. Success as measured by reading achievement scores was built into the design so that other factors could be observed and studied.

Of the three approaches used, two are well described in the professional literature on reading instruction. Either the basic reading approach or the individualized reading approach had been used by most teachers in the study. However, the language-experience approach had not been described well enough before this study to give teachers guidelines for using it as the major instructional design. Prior to this study, most of the teachers using elements of the language-experience approach did so as supplementary activities. During the course of the study, however, the language-experience teachers ruled out all other approaches for a period of time. Children in their classrooms made as much or more progress in reading skill development (as measured by standardized tests) as did the children who had direct teaching of skills in the classes using the *basic* and *individualized* reading approaches. It is these results that give us our clues for asking questions about some of our prevalent practices and our predominant materials. It will be in the answering of some of these questions in thousands of classrooms across the country that we will continue to move forward with a reading program for today's children.

428.

Results from the formal part of the San Diego County Reading Study Project raise these soul-searching questions about reading instruction:

1. Is the use of a predetermined controlled vocabulary as significant an element in reading instruction as we once thought? Is there enough control in the real language of the individual to guide early word recognition without systematic control from outside sources?
2. Are the choppy, unnatural sentences of present-day preprimers and primers easier to read than more natural sentences might be? Could it be that the concept difficulty is enough greater in unnatural sentences than in sentences of real language that vocabulary control is outweighed as a factor in making reading simple and easy?
3. Are children's reactions to reading as important as their word-calling skills? Can an over-emphasis on reading as a skill apart from listening, speaking, and writing develop negative attitudes?
4. Does a highly structured, predetermined sequence of reading materials and activities produce an attitude of language and thought conformity? Is it just as important to develop in children a feeling that their own ideas are worthy of expression and that their own language is a vehicle of communication?
5. Do all important reading resources exist outside of the child and in books, or should we develop the idea that a child's own thoughts may be used as a basis for the development of instructional reading materials?
6. Does the level of social interaction between teacher and pupils have as much to do with achievement as the method used? If a child really understands what he is doing, is there a greater possibility of development?
7. Does a child profit more from reading something he has selected than from reading pre-selected materials at all instructional periods?
8. Can we afford any longer to evaluate reading programs on the basis of achievement scores of standardized reading tests? What about attitudes toward reading? personality development? self-expression abilities of pupils who are expected to be thinking, contributing citizens in a democratic society?

These and many other questions are confronting teachers and administrators who are willing to take a serious, penetrating look at reading instruction. As they answer these questions they become more and more aware of the need to look at reading as a means of arousing meaningful responses on the basis of individual experiences of the learner. They realize that some of the concepts which have been developed concerning such important areas of instruction as basic sight vocabulary, phonics instruction, reading materials, motivation for reading, classroom organization, and evaluation of pupil progress must be updated and expanded.

(These topics are discussed more fully in a series of five reading monographs, "Improving Reading Instruction," published by the Department of Education, San Diego County, California, and Monograph No. 27 in the Contributions to Reading Series of Ginn and Company, "The Language-Experience Approach to Teaching Reading.")

As we continue to study reading instruction in its space-age setting, we recognize anew that we are dealing with the human resources of our society—resources which are so precious and essential to survival that we cannot risk the possibility of *intellectual servitude* any more than we can risk the possibility of *physical servitude* as a result of not doing our best. This means that reading instruction must result in more than pronunciation of words, the reciting of phonetic or grammar rules, the verbatim parroting or rote memorization of passages, and the completion of pencil and paper activities which are selected and administered by the teacher. Reading instruction must result in more than blind following of the printed page. Reading from its beginning in the kindergarten



must be an integral part of a meaningful, useful language experience. At all times it must remain in its natural relationship to the other communication skills of listening, speaking, and writing.

A danger to society far greater than the fact that all children read the same book is the danger of uniform response to ideas. Uniform, blind thinking of American youth is the dream leaders of authoritarian societies and movements envision. The contrasting dream of men and women who cherish a free society is that reading instruction will serve to develop thinking individuals

- who are critical of sources, definitions, and assumptions
- who are prepared to select from the many sources available those which serve the situation best
- who choose a wide variety of reading materials for information and for leisure time activities
- who view reading as a means of communicating ideas, ideals, aspirations, and flights of fancy
- who contribute to the storehouse of reading materials by recording their own thinking on topics of deep concern and personal pleasure

The future of reading instructional programs will not depend on what is said here, but rather upon the changing role of reading in enriching the lives of children, in facilitating learning, in promoting good citizenship, and in strengthening each child's concept of himself as a contributor of ideas to an emerging and growing society.

138.

The Individualized Read. Pgm: a guide for Classroom Teachers: IRA Conf. Proceedings: Vol. 11, Part 3, 1966. Lyman C. Hunt Jr. (Ed.),

JEANNETTE VEATCH

JERSEY CITY STATE COLLEGE

# 4. Classroom Organization: Structuring the Individualized Reading Period

THE OPERATION of this approach to reading instruction demands an increase in resourcefulness of children to work in activities that have a strong element of self-assignment within them. Teachers may teach particular skills in tool-subject areas in other parts of the day's schedule, but the pupils must be helped to recognize and accept responsibility for that which they do not know. They then must go to work on it.

No teacher can teach anything if he is constantly interrupted. Therefore, there must be a general plan that is developed day by day. Such a plan involves something like the following sequence:

1] Planning the independent work period.
2] Choosing a book and reading it silently.
3] Making decisions about each book chosen and read.
4] Preparing for the individual conference.
5] Preparing for instructional groupings.
6] Preparing for the amalgamation into the rest of the curriculum.

## Planning the Independent Work Period

Pupils must accept the responsibility of developing activities which absorb them and thus are performed with a minimum of help. The teacher needs to do a fast round-the-class check up to anticipate a possible problem. Once a teacher begins his instruction in individual conference, no interruptions, except for emergency conditions, should be allowed. The teacher, in short, must teach.

The first item on any educational independent work period during the reading period—as differentiated from the busy-work type—is that of silent reading of a self-chosen book. This selection should occupy the pupil from 20 to 30 minutes or longer. If there is frequent changing of

 430.

books, the teacher must recognize that 1] he has not done a good enough job of helping children choose books wisely or 2] the book supply is inadequate.

Rare is the teacher who knows how to keep the whole class busy enough to make individual conferences possible. The purpose of this section is to help those teachers who would like to move in this direction.

The activity centers for independent work suggested below allow for many options. All activities should be self-educative in character be attractive and interesting, and need a minimum of teacher check-up afterwards. Suggested centers are:

1] The Book Center, where all of the books in the room—texts, trade, reference works, etc.—along with chairs (a rocker is dandy), and/or a table for quiet reading of a self-chosen book, are located.

2] "A Writing Center," where lovely, new, long, sharp pencils and a stack of nice, clean paper beckon those who have a good story to write or an important letter to send. Stamps, envelopes, even a typewriter (used or new), should be a part of every classroom's writing center.

3] "An Art Center," a place for paints, clay and other wet media, with nearby wash-up facilities (a pail works fine). A place for colored chalk, crayons, and other dry media, along with colored construction paper, scissors, paste, and all other necessary implements.

4] "A Science Center," where, hopefully, plenty of observational tasks can be set up. Here are the magnifying glasses to be used on plants, the turtle, the snail, terraria-aquaria, and other science equipment.

5] "A Materials Center" for math materials or constructive materials such as Lincoln Logs, Erector Sets, and the like. Magnets may be here or in the science center.

6] "A Teacher-Made Follow-Up Exercises Center," where children can be sent to find self-drill assignments on some nagging problem, such as multiplication tables, homonyms, digraphs, or whatever.

7] "A Dramatization Center," where the social-studies unit can be role-played and stories can be practiced with puppets, etc.

With this kind of classroom, teachers will find themselves progressively free to teach children individually. All activity during any instructional period must, of course, be quiet enough not to interfere with the teaching

and learning going on. Routines will need to be set and children taught how to proceed. But once these centers are in operation, the teacher can be marvelously free to teach.

## Choosing a Book and Reading It Silently

The criteria for choosing a book are simple indeed. The teacher trains, instructs, role-plays, and in other ways shows children *how* to choose a book that is just right for them at that time. The teacher might say something like this:

> Look over all of the books. Pick one that looks like it might be the one you want. Riffle its pages. Pick some page in the middle of it. Start to read it to yourself. If you come to a word you cannot figure out, put your thumb down. If you come to another, put your first finger down; another, your second finger; and so on. *If you use up your whole hand, that book is too hard!* Put it down and start all over again. I do not want to hear your worst reading. I want your best. It will be your best when you choose a book that you like and that you can read with very little help.

Thus a teacher helps a child choose a book that is within his independent level, which *is* his instructional reading level. An adequate book supply will insure that each child will find a book that meets his interest. If such is not available, the teacher must encourage children to write a note (or report orally, if they can't write) requesting desired books.

Assuming that every child finally has a book that will absorb him for some time (at this point, this reading program looks not unlike a library period) he can proceed with the next item of business.

## Making Decisions About Chosen Books

Several options are available:

1] "Shall I prepare it to bring to my teacher in an individual conference?" (If so, then I must be sure I know it well.)
2] "Shall I do a project (diorama, experiment, or some other project) with an idea gained from this book?"
3] "Shall I present this book in some form during our sharing period?"
4] "Shall I simply record it in my notebook and go and choose another to read?"

437

Preparing for the individual conference was described in the preceding chapter. The teacher needs to help children be aware of the kinds of ideas to be explored in the individual conference. Children must, literally, "practice up" on what to expect with their book.

Doing a project is a fine way for a child to develop independence, resourcefulness, and creativity. He should check out his plans with his teacher—but the main ideas should really be the child's own. The more a teacher promotes this type of self-assignment the more exciting and rewarding the projects may be. The teacher's expert knowledge is essential, but motivation is more powerful when a child works on his own ideas.

The sharing time is best held at some other time of the day than during the reading period. Many teachers find Friday afternoons exhausting and difficult. Sharing time (replete with a steering committee) can make these fatiguing hours a pleasure indeed. The pupils may plan projects, or skits, or in some way legitimately "show-off" what they have prepared.

A simple recording in the child's notebook would include certain items such as author, title, date read, a short comment. Some teachers like to have children write a paragraph about a book. Whatever the length of such a request is not what matters. What DOES matter is whether the keeping of a record, in effect, punishes a child for *finishing* a book. Nothing, at any time, should slow up the desire of a child to read. We are for reading in quantity, in millions and billions and trillions of books —good books, good literature.

## Preparing for the Individual Conference

The most important preparation a child can make for his individual conference with his teacher is to have read his book thoroughly. But this preparation is not a one-way street. Early in the school year, the teacher must show the pupils the kind of questioning they can expect. Perhaps a bit of role-playing with some brave soul taking the lead role would benefit. Perhaps an explanation of all the ways in which the teacher will ask questions will suffice.

Often a pupil will benefit by choosing a buddy and trying out certain skills, say oral reading, on him. Often one's best friend is one's severest critic. This fact must apply at the childhood level as well as at the adult!

In any event, the pupil should never feel that his teacher is going to "sneak" up on him. He should feel that his teacher will be *very* interested and that he will give his undivided attention to the child for the duration

of the conference. A teacher should help a child gain confidence. Maybe there will be butterflies in the stomach at first (this feeling happens even at the college level!) but, assuming preparation is adequate, it should be an exciting discussion about the book the child has read.

## Instructional Groupings

The major skills of comprehension may be investigated at the individual conference. "Reading between the lines" inferentially, critically, or creatively—these all really mean the same thing. Put another way, the conference is devoted to the development of eternal vigilance of the printed word, for such is the salvation of the democratic society. Purposes, values, guilt feelings, triumphs, suspicions, frontier-pushing, all this and more is taught—by discovery, be it clearly noted—by the incisiveness of the teacher's questions and responses.

Thus from this exploration of problems and disabilities, *around the central problem of over-all comprehension,* a teacher will be able to spot those children who reveal needs in such matters as:

Oral reading,
Omission of *crucial* words (not just minor ones),
Repetitiousness of certain lines and phrases,
Obvious lack of understanding of the hidden meanings in the material,
Voice quality, control and volume, etc.

The finicky check-off lists that can be found in many reading texts add up to one fact when the above symptoms occur. That fact is that the child does not understand what he is reading. When this fact is exposed, the teacher has the option of either asking the child to get an easier book or forming a group of children with similar difficulties and frankly discussing the problems with the group in order to discover the basic problem.

When grouping for instructional purposes, the teacher should meet with each group consecutively. Those groups which do not need the teacher's specific instruction can work in separate groups at the same time.

The matter of word analysis must, in this writer's opinion, be introduced, taught, and built during the WRITING (or spelling) period. Word analysis is word-breaking-up. This is essentially a writing operation,

not a reading operation. Word perception is essentially a reading operation. When children have been taught word analysis (phonics if you will) through their independent writing activities,[1] the skill of analyzing a word is AVAILABLE in the child. The teacher may assist the child in recalling this skill when he becomes stuck on a word in reading.

Thus groups can be set up during the reading period for this purpose once the organization of the difficulties into group has been made by an analysis of the *writings* of the class.[2] To pull the *teaching* of word analysis out of the reading period allows the teacher much more time to work at "reading between the lines." And that's more fun to teach!

## Preparing for the Amalgamation of Reading into the Rest of the Curriculum

Mainly, the rest of the curriculum needs reading. Yet the dilemma of the single text book can get in the way. Social studies can be taught without social studies texts for anyone but the teacher (and then only for reference). There are numerous trade (i.e. library-type) books available for most age levels for children to read in depth in most phases of the social studies, science, and even arithmetic. Any good children's book list contains hundreds of books that are of content nature. Many authorities agree that "content" reading is different from "reading" reading. They don't quite say it that way, but that is what they mean. "Reading" reading is the kind that has little or no application to anything else. Children should and can be taught to read content when they are able to choose from hundreds of books available.

Thus when the classroom organization patterns are shaping up, the teacher will help children plan to choose books that will have application to their social studies unit, to story problems in arithmetic, to story writing in written language, to dramatizations in oral language, and so on. The carry-over is not hard. It takes an adequate supply of books. Substitution of trade books for the usual basal reader will allow extra money. The use of paper backs allows the school system to expand its book collection and many schools now use paper backs.

As has been suggested earlier, a teacher should teach skills such as those found in penmanship during another portion of the day and then

---

[1]See the writings of Mauree Applegate; Sylvia Ashton-Warner; Grace Fernald; Alvina Burrows; and the present writer on this matter.

[2]See R. S. Fleming (Ed.). *Curriculum for Today's Boys and Girls.* Merrill, p. 180 ff. J. Veatch, *Reading in the Elementary School,* Ronald, pp. 360-361.

435.

encourage children to take part of their independent work time to polish up those skills in which they are weak.

Most of all though, the role of the teacher is to relate the classroom experiences to activities in the outside world. Classroom instruction includes discussion of newspapers, radio, television, and other activities of the outside world. The total melds into one learning whole. For, as all good teachers know, reading is not for reading. Reading is for learning.

436.

139.

The Individualized Reading Program: a guide or Classroom Teachers: IRA Conf. Proceedings; 1966, Vol. 11, Part 3/ Lyman C. Hunt Jr. (Ed.),

JEANNETTE VEATCH

JERSEY CITY STATE COLLEGE

# 3. The Conference in the Individualized Reading Program: The Teacher-Pupil Dialogue

THE INDIVIDUAL CONFERENCE is the most important aspect of the individualized reading program (IRP). Through this brief, intensive, personal contact the teacher may determine each child's interest, personality, and reading strengths and weaknesses. The instruction stands or falls on the ability of the teacher to *teach* in this situation. Its potential for learning is tremendous. It is a Mark Hopkins-on-the-end-of-the-log situation.

The conference should include these major phases:

1] Preparation (teacher and child)
2] Conference Proper
   Evaluation by teacher of
   a) Comprehension skills
   b) Clues to personality according to choice of books
   c) Mechanical skills
   d) Oral Reading Ability
3] Closure of the Conference

## Preparing for the Conference

***Teacher*** For the best conference a teacher should have 1] some knowledge of the reading materials, 2] some form of record keeping, 3] a standard for the child to reach for, 4] some knowledge of the child, and 5] some materials for further skill development.

Knowledge of the reading materials: You will notice that some of the questions in the sections on comprehension and mechanical skills are of such a nature that a teacher can gain insight into the child's preparation, understanding, and appreciation of his reading even if he, the teacher, has not read the book.

Record Keeping: Teacher records are usually kept in a loose leaf (*not spiral bound*) notebook. Pages need to be added and removed. Teachers may record during the conference provided it does not detract or interfere. Whether the record is kept during or immediately after the conference, or both, the child should have some idea of what has been written. Sitting side-by-side helps all of these processes.

A knowledge of a child's personality, interest, and ability serves as a guide in meeting the needs of the child. This matter is treated in some detail in the section on records.

Some materials for follow-up can also be at hand, although page-by-page following a workbook is not acceptable.

***Children*** The child decides which book he will take to the conference and prepares it according to preplanned standards. He records the necessary information in his notebook. He prepares to discuss the story and is ready to read a portion of it aloud.

## Conference Proper

The success of the IRP depends greatly on the type of questioning the teacher pursues in the individual conference. Open-ended, thought-provoking questions are most desirable.

### Suggested Questions

*Comprehension Area*

1] Main Idea

Can you give me the main idea of the book in one sentence?
What was the plot of the story?
Does the setting of the story affect the plot?
Is the author writing about people living today, or people who lived a long time ago? How do you know?
Was this time element important to the story? How?
Have you read any other books that are similar to this book? How are they similar?
How does the title of the book relate to the story?
What kind of a story was this?
Describe this book with one word if you can.

2] Appraisal of Child's Value Structure

What do you think about this story?
Could you get into an argument about this book? Why?
On which side of the argument are you? Why?

438.

After you read this story, did you feel as though you wanted to do something about something? What?
Did anything in this book make you change your mind about something? If so, what was it?
Do you always believe everything you read in books?
Would you like all your classmates to read this book? Why?
Did the book make fun of anyone?
Was the main character in the story perfect, or did he or she make mistakes?

3] Inferential and Critical Reading
Did any character in this story have to overcome a difficulty? If so, what do you think about the way he or she did it?
When you read this book, did you get any ideas which were not actually put into words?
What was this story *really* about?

4] Sequence of Story
If this story were a play, what main event would make up each act?
Look at this illustration. Describe what is happening and what happened before and after this particular incident.
Tell me the story (in part or whole).
Did the story end the way you expected it to end?
Would you like to change the ending in any way? Why?

5] About the Author
What is the name of the author?
Do you know anything about him or her?
If you wrote the author a letter, what would you say about his book?
Have you read any other books written by this author?
Would you now go and look for more books by this author?
Do you think the author wrote this book purely for children's enjoyment or to give children information?
Do you think the author might have children of his own?
What makes you think so?

*Reasons for Book Choices and Clues to Personality*

1] Personal Identification
Why did you choose this book?
Did you like the book? Why?
Why did you choose this particular book to present to me?
Did you choose this book because you thought I would be pleased?

439.

What part of the book did you enjoy particularly? Why?
Do you think you would enjoy living like, or being like, the person in the story? Why?
Did any part of this book bore you? Why?
Has anything ever happened to you like what happened in the story?
Which character in the story didn't you like and why?
How did the story make you feel? (Happy, angry, thankful, etc.)
Did you learn a lesson from this book?

2] Awareness of Peer-Group Action
Was there anyone in the story who seemed lonely? Do you ever feel lonely in our classroom or on the playground?
Was the main character in the story popular or unpopular? In our classroom which child do you think is popular?
Do you think there might be some children in this classroom who would like the same kind of books that you like? Why do you think so?
Do you ever get together with your friends to read books?
Would you rather read to a friend than have a friend read to you?

3] Evidence of Modification of Behavior
Do you read more books now than you used to? Why?
When you are asked what you would like to have for a gift, do you ask for books? If yes, what type?
Do you have some problems like people had in the story? How do do you try to solve these problems?
Do you usually ask your mother and dad to help you with your problems or do you prefer to ask your friends to help you?
Did any of the actions in the story remind you of something you ever did?
Did any character in the story do anything that you would be ashamed or afraid to do? Explain.

*Mechanical Skills*

1] Word Definitions
Here is an unusual word. Can you tell me what it means?
Can you tell me another word that means the same or almost the same thing?
If I said (naming an antonym or homonym), would you say this word was the same or opposite in meaning?
Did you find any words that had a different meaning when you

read them somewhere else? What was the difference?
Use this word in a sentence.
Can you find a word on this page that has more than one meaning? (bat, ship, walk, for example).

2] Study Skills
Show me the index (table of contents), title page, etc.
What thing(s) does this page tell us?
Find page(s) where such and such is described.
Did pictures help you understand this book? How?
How do you find things in the index (table of contents, title page)?
Can you locate the setting of this story?
Can you find the general topic of this story in another book? In any reference books? Other texts in other subjects?
Can you tell me the thread of the story by looking at the table of contents?
Skim this page and tell me ———.
Are there any graphs, charts, or maps which helped you? How?

3] Ability to Analyze Unknown Words. These skills can be developed best in independent writing.
Show me a word you did not know. How did you figure it out?
Here is a word that seems difficult. What is it?
How did you figure it out? (Initial letter, blend, rhyming, ending letter, vowel sounds, and general configuration.)
Let me cover up part of it. Now what do you see? Say it; now here is the whole word. Can you say it?
The word starts like _____ but rhymes with _____. Try it.
Choose a word at random:
What is the root word?
What is the prefix?
What is the suffix?
Unlock the word meaning for me by telling me what this word means with a prefix, a suffix, or both.

4] Reading for Details
The child should be questioned for details according to the nature of the material. If the book is concerned with such areas as
How to build or make things.
How to perform an experiment.
The following of recipes.
Then reading for details may be included.

*Oral Reading in the Conference*

The purpose for oral reading in the conference is to determine how effectively the child can "hold an audience." It highlights the conference. The evaluation of the oral reading should be based on how effectively the child can make his reading sound like talking. It is a perfect opportunity to "show-off" in a healthy way.

The teacher can help the child to develop natural expression by giving quiet, incentive remarks while the child is reading. Below are several examples of such incentive comments:

What happened next?
Is that so!
Make it exciting! (spooky, silly, etc.)
Come on!

The selection which the child reads orally should always be material with which he is familiar and which he is prepared to read aloud. The child should read a selection which is suited to his ability and needs. For these reasons it is generally agreed that the child should choose the selection and the amount of it that he wishes to share with his teacher. The teacher may wish to ask the child the reason for his particular choice.

## Closure

In the closure of the conference the teacher and pupil evaluate progress and plan for an activity or project, and the teacher offers guidance on selections of books for further reading. The conference is concluded on a positive note at a logical pause in the material or teaching.

442.

140.

## B. UPPER ELEMENTARY LEVEL

### 1. Oral Interpretation of Literature

84.

ROBERT WHITEHEAD
Sacramento State College

"THEN WOULD YOU read a Sustaining Book, such as would help and comfort a Wedged Bear in Great Tightness?" —The words of Pooh Bear from A. A. Milne's *Winnie-The-Pooh* pinpoint two fundamental facts about children and the literature they enjoy. First, that a satisfying literary experience for a child, or a stuffed bear, demands a selection of substance—a sustaining book or poem. The second is that beautiful literature must be *heard* to be fully appreciated. The human voice—particularly that of a teacher who reads with enthusiasm, with a full heart—is a fine musical instrument, filled with melody, movement, and emotion.

Children are quick to sense when they have such a teacher. Watch their rapt attention in a classroom where a teacher with these skills holds forth. She is the eye and the epicenter of her children's world. Four jets, two stampeding elephants, and a flashing pinwheel would not turn the attention of the boys and girls from the teacher's face when she reads aloud.

The very nature of our profession dictates that each teacher should learn to read aloud—and to read aloud *well*—to children. For the very success of our venture—how well we impart knowledge and a sense of values to our children—depends upon how well we read and interpret the thousand and one facts, assignments, and notices which make up

443.

part of the package marked "An Education." And of course every day we should read aloud to children a piece or two of prose or poetry, for in so doing we are helping them to see the beauty and fun of literature, to perceive its values, and to appreciate the great literary works, old and new.

Reading aloud *well* is an art. A few teachers seem to have an almost innate command of that art; some teachers possess it to a moderate or lesser degree; some seem to have it not at all. But whatever our degree of competence with the skills of oral interpretation, we might profit more and again, or we might feel a resurgence of interest, or we might pick up a helpful hint on how to read aloud, if we posed and then answered two questions:

1. What does it profit the children if I read aloud to them in the classroom?
2. What are a few lasting principles of good oral interpretation?

## Why Read Aloud?

In these days of increased class size and the "crowded curriculum" (fifteen subjects to be taught in the elementary school!), we increasingly hear the cry from teachers, "I don't have time to read aloud to my children!" Admittedly, the demands upon us to teach subject matter per se are heavy. But we always find time to utilize those approaches and materials which we feel contribute to learning, even though they don't "fit" perfectly the course of study. The reading aloud of good literature is appropriate and deserves time for many reasons. To consider but a few:

*Promotes interest.* Reading aloud to youngsters furthers their interest in good literature. Just as a television spectacular or a movie version of a child's book places a heavy demand upon that book in the public and school libraries, so does the reading aloud in the classroom of a popular book cause children to seek out other books of a similar nature or other books by the same author. Or very often when a teacher begins a book in class she will find that within a day's time one or two enterprising youngsters will have obtained duplicate copies of the book and are following the teacher's presentation. It should be a rewarding experience for any teacher to see her children re-reading what she has just read aloud to them. For this result is what she should hope for—a new and quickened interest in pursuing quality literature.

*Helps interpret character.* The human voice has the ability to bring out the true flavor of a literary character—to make him fully alive. This act is accomplished as the teacher gives words and passages their proper stress and phrasing or as she creates a mood by raising a brow or lowering her voice. Only then does the child-listener gain a complete understanding of who the characters are, what they are thinking, and why they are performing as they are.

For example, consider the scene in Twain's *Tom Sawyer* wherein Tom and Becky encounter the hideous Injun Joe in the cave. As the two children round a corner in the black cavern, a circle of light highlights the dirty, gnarled, twisted hand of Injun Joe plastered against the wall. The teacher, by lowering her voice, by proper intonation, by a gasp of surprise, can portray the horrible Injun Joe as Twain meant him to be represented. Whenever this passage is shared with children, they become so excited that it is necessary, figuratively, to scrape them from the ceiling. For children recognize then the total evil of Injun Joe and the danger that his presence in the cave portends for Tom.

*Is a tension-reliever.* The oral reading of literature presents the teacher with an opportunity to acquaint children with some of the most humorous plots and characters in all of literature. Nor can too much be said about the general tension-relieving quality which books of humor bring to the classroom. The presence of humor in the classroom should not be by just happenstance; rather, it should be deliberately induced—and humorous literature is the ideal vehicle.

It is interesting to note that many of our good books of read-aloud humor for children have the names of boys for titles: *Homer Price* by Robert McCloskey, *Henry Huggins* by Beverly Cleary, *Henry Reed, Inc.* by Keith Robertson, and *Five-yard Fuller* by Robert Wells. One of the

most delightful books to share with youngsters is Phil Stong's *Way Down Cellar.* This is the story of three boys who discover a secret tunnel leading into the hollow walls of an old mansion whose occupants are an eccentric woman and her cook, Ethelfreda. Disappearing cookie tins (and cookies, naturally!), secret panels, and peep holes are mere introductions to a riotous, laughter-choked conclusion.

Turning our attention to poetry, we would be remiss if we did not mention Cole's *Humorous Poetry for Children,* a book which draws together an outstanding collection of funny-full, fanciful verse. This volume is a must for the teacher who likes to cap her read-aloud sessions with a last quick dart of laughter.

*Rewards the teacher.* Reading aloud to youngsters can be a direct reward to the teacher in a number of ways. As the teacher reads she is in a position to select, share, and relive with the children those favorites of her own childhood, those books and poems which she knew and enjoyed so much. Some teachers are hesitant about resurrecting some of the old classics. They shouldn't be. What made these good stories in their times makes them so today. Many of the older stories are still right for today's children; they are still circulating. The fact that a teacher "once upon a time" dearly loved and appreciated such books will make her oral presentation of them all that much better.

Further, reading aloud can give the teacher an opportunity to be a real "hero" with her students. This fact was brought to my attention the day I overheard two boys on a playground engaging in the following dialogue:

"Frank, why are you standing near the door?" asked one boy. "It isn't time for recess to be over."

Frank responded, "I know, but our teacher is reading *Treasure Island* to us, and I want to be the first one back into the room."

Frank's friend, a youngster who apparently had had earlier contacts with teachers who read aloud to him, replied, "Oh, shucks! Our teacher never reads to us!" What a sorry indictment of the second teacher. What well deserved praise for the first!

## Tips on Reading Aloud

The art of reading aloud demands an attention to the detail and to the finer nuances of interpretation. But by concentrating on just a few points, by focusing on and improving in just a few areas, we can make the read-aloud period more enjoyable to the listeners.

*Summarize long passages.* Long, flowery descriptions, such as those found in Tarkington's *Penrod* and Twain's *Tom Sawyer,* often slow a story or poem which otherwise makes excellent read-aloud material. Children can rarely suffer through long readings of descriptions of scenery or heavy moralistic preaching. Further, children want to hear who the characters are and what they are saying and doing. Pre-reading of material will show the teacher where to wield the blue pencil, where to summarize, and where to focus her reading.

*Stop reading a "clinker."* We have seen teachers, thinking that a book begun is a book to always finish, begin a book —ofttimes a classic—which they enjoy, which they think the children will like, and which they pursue to its deadly end. But if the teacher had been alert to her audience, she would have noticed early that the youngsters were paying little or no attention to her reading. For this group of children, the book is a poor choice, a "clinker."

With every new class of children we must weigh the potential of every book we are considering reading to them. Sometimes we become so enamoured of one book, because it has been so successful for us through the years, that we use it automatically with a new group. No book deserves recognition as a guaranteed success. For groups of children vary in their acquaintance with literature and in their sophistication. So, if a book doesn't begin well for a group, put it aside or try it later in the school year or reserve it for certain individuals.

*Do things with your voice.* If the teacher cannot put enthusiasm into her voice, if she cannot enter into the reading with a full heart, it is better that she not read at all. I once visited a class where the teacher was reading to the class from a book about rockets. She had the audacity to read, "The rocket went woosh." Now, any rocket that leaves the ground in a cloud of liquid oxygen goes "WOOSH!!," and the children do not expect less. Children will quickly be alienated by the teacher who does not read with a fever and a fervor.

*Stop at an interesting place.* An experienced reader knows where this place is. It is the point in the mystery story where a hand reaches from without the drapes to throttle our hero. When the teacher reaches this point in the story—when the children are leaning forward—then the teacher says, "We'll stop reading here for today." And if the class responds with "Oh!" or "Do we have to stop now?," the teacher knows that she has found an interesting place to resume tomorrow. Further, the "ohs" and "ahs" are good measuring sticks of how well the teacher is reading. Of course, we never punish very small children with such a technique. For them we read the story to its conclusion. But for the others —leave them dangling!

*Read above level.* Read aloud some materials which are a year or two above the children. Children very often know the books at their own reading level. They are curious about the people and plots in books "up there," in the next class or age group. Also, reading such materials makes children reach up, both for vocabulary and for concepts. It is a stretch that is to be encouraged by reading a bit above their level at times.

Reading aloud involves a knowledge of many skills. It also involves an understanding of how children benefit from their participation as listeners. But these traits are not enough. A good book plus experience plus enthusiasm for reading aloud spell success as an oral reader.

Vol.7, 62

14h

# 19. The Mass Media and Reading

PAUL WITTY



The acquisition of TV sets in the United States has been phenomenal. In 1949-1950, when we started a series of investigations in the Chicago area, 43 per cent of the pupils reported having access to TV. The next year, 68 per cent had sets at home; and in the following year, the per cent continued to rise until it reached 99, where it has remained during the past three years.

The foregoing findings are based on a series of studies of TV made yearly by the writer since 1949-1950. In each of the elementary grades, 200 boys and girls have been given every year a questionnaire on TV supplemented by interviews. The teachers and the parents of these pupils have also answered questionnaires. Representative samples have included pupils from low, medium, and high socio-economic backgrounds from schools in the Chicago area. Approximately equal numbers of boys and girls have been studied. A similar procedure has been used with high school pupils since the first investigation when elementary school pupils only were studied.*

The average amount of televiewing by these pupils has shown little variation from year to year. In 1950, it was 21 hours per week. In 1951, a slight drop occurred. But with increased opportunities for viewing the average increased again. It has persisted near 20 hours per week throughout recent years. In 1961, it was 20 hours.

In these studies, the primary grade children were found to view less than the older pupils. The average amount of weekly viewing in 1961 was about 15 hours for the first grade and 24 hours for the sixth grade. Slightly less time was given to TV by seventh and eighth grade pupils, and still less by high school students. The average for pupils in grades 9 through 12 was about 13 hours per week.

In a recently published book, Wilbur Schramm and his associates cite several studies and conclude: "In the early grades the average time a child spends on television is about two hours a day. Thereafter, it rises to a mountain peak of three or four hours about the sixth or seventh grade, and falls slowly throughout high school."[1]

## Favorite TV Programs

From year to year, the best-liked programs change. In 1950, *Hopalong Cassidy, Howdy Doody, Lone Ranger, Milton Berle,* and *Arthur Godfrey* were at the top of the children's lists. *I Love Lucy* achieved first place in 1952 and kept this rank until 1955 when *Disneyland* replaced it. In 1955 and 1957, *Disneyland* continued to be the favored program but dropped to second place in 1958 when *Zorro* attained first rank. Noticeable was fourth place given to *Shock Theatre,* a type of offering that was especially popular in the middle and upper grades.

By far the best-liked program among elementary school pupils in 1959 was a new presentation, *77 Sunset Strip.* In 1960, *Dennis the Menace* and *Dobie Gillis* were favorites. In 1961, *Twilight Zone* and *The Flintstones* were first and second in popularity. In grades one to three, *The Three Stooges* was given first place, while in grades four through six, *Twilight Zone* attained the highest rank. *Twilight Zone* was the most popular program of high school students too, who gave second and third ranks to *The Untouchables* and *The Valiant Years.*

Schramm and his associates have obtained similar results and have pointed out that variety, adventure, Westerns, and science fiction dominate the early school years, with the crime program and the situation comedy appearing a little later.

> We have, then, almost the entire line-up for the teen years. Crime mysteries become more absorbing. Children's Westerns tend to be replaced by "adult" Westerns such as "Gunsmoke" and "Maverick." Programs like "Disneyland," "Zorro" and "Superman" fade in popularity. Much of their time now goes to crime dramas and popular music. By this time there is very little of the child's viewing that is given any longer to "children's" programs. And as the child's tastes become more and more adult, a tiny flair of interest in public affairs begins to appear.[2]

These writers point out also that there is relatively little viewing of programs offered by educational stations.

> In the sixth and eighth grades, from 15 to 20 per cent of the children view the educational stations at least once a week. In the tenth grade viewing falls off to around 10 per cent. In the twelfth grade it seems to pick up a few per cent. About 65 per cent of the San Francisco sample and 69 per cent of the Rocky Mountain sample able to receive educational television say they do not view the (educational) stations at all.[3]

Despite the strong appeal of TV, radio was shown in our investigations still to maintain a hold upon pupils. The average amount of time spent weekly in radio listening by the primary group was about five hours per week and eight hours by the pupils in the higher grades. In the

*Articles by the writer have appeared yearly in *Elementary English,* for example, Paul Witty, "Televiewing by Children and Youth," *Elementary English,* February, 1961. The 1961 study was presented by the writer in collaboration with Paul Kinsella in the January 1962 issue of *Elementary English*; "A Report on Televiewing in 1961." See also, Paul Witty, "Studies of Interests of Children," *The Packet,* Winter 1961-1962; Paul Witty, "A Study of Pupils' Interests, Grades 9, 10, 11, 12," *Education,* September, October, and November, 1961.

[1]Wilbur Schramm, Jack Lyle, and Edwin B. Parker. *Television in the Lives of Our Children.* Stanford, California: Stanford University Press, 1961, pp. 168-169.

[2]Wilbur Schramm et al, *op. cit.,* p. 39.

[3]Wilbur Schramm et al, *op. cit.,* p. 93.

446.

twelfth grade, the average was 12 hours. Girls gave more time to the radio than did the boys, but for both boys and girls, the amount of time increased with advancement in grade. Recently the transistor radio has become popular in this area particularly with upper grade and high school pupils. Disc jockey and crooner programs were the favorites in the upper grades and high school.

The results of this study when compared with our earlier findings suggest that children today attend movies outside the home less frequently than in the past. In our latest study the boys and girls said that they most often attended the movies once every two weeks. The average number of times per month for the sixth grade pupils was one and one-half. Less frequent attendance was reported by high school students than by the elementary school pupils; and the boys reported that they go to the movies a little more often than the girls. The favored movies were the ones shown at the theaters near the pupils' homes. The young pupils preferred the Disney type presentation, while science fiction was popular with the older boys and girls. Romantic pictures were listed high in the preferences of the older girls.

Another activity engaged in less frequently now is reading the comics. The comic magazines, although popular, do not have the appeal they had in the past. The average number of comic magazines read monthly by sixth grade pupils was 2.5.

## Reading in the Primary Grades

The results of the investigations made in 1958-59 show that reading occupies a place far below TV in the lives of boys and girls. Thus, we find that while the mass media consume several hours daily, voluntary reading is accorded only an hour or a little more each day. The average for the primary pupils was about one hour per day; in grades 3 through 8, it was 1.1 hours; and in grades 9 to 12, about 1.3 hours.

As in other studies, the popularity of animal stories was pronounced in the primary grades. But the impact of the space age was seen in the favor accorded by the boys to stories about the stars, planets, space, and airplane pilots. Girls, on the other hand, appeared to enjoy stories about children; fairy tales were also popular with them. However, like the boys, their first preference was for animal stories.

The most popular titles of books selected by the boys were *Make Way for Ducklings, Mike Mulligan and His Steam Shovel, The Cat in the Hat, Ferdinand, Billy and Blaze.* The girls' preferences included *The Cat in the Hat, Cinderella, Madeline, The Little House,* and *Flip.* Both boys and girls included *Millions of Cats, The Happy Lion,* and *The 500 Hats of Bartholomew Cubbins* in their lists of favorites. However, beyond the first three or four favorites, there were few books cited by many boys or girls. Diversity in reading choices was a characteristic of these pupils.

Series of books are apparently well-liked by primary children today. About 61 per cent of these pupils reported reading one or more series, with the *Golden Books* mentioned most frequently. The *True* and the *I Want To Be* series appeared second and third in popularity but with frequencies much lower than the *Golden Books.* About half of the primary pupils stated that they read magazines. *Humpty Dumpty* was the solid favorite with both boys and girls, with *Jack and Jill* and *Highlights* next in order.

## Reading in the Intermediate Grades

The pupils in grades 3 through 6 were questioned about ownership of library cards. More girls (76.7%) than boys (70.6%) answered affirmatively.

The frequencies with which the pupils said they took books from libraries were ascertained. The most frequent time of withdrawal of books from the public library was once every two weeks, reported by sixth grade pupils. Of course, many pupils obtained books every week.

To a question about the influence of TV, movies, and radio on their reading habits, the majority of pupils answered that none of these had influenced their reading. Among those who answered affirmatively, television was highest in influence.

Sex differences in reading preferences were evident from the middle grades throughout the high school. Boys selected fiction, articles in newspapers and magazines, and biography as their first three choices. The girls expressed a greater liking for poetry and plays.

These pupils chose fiction as the kind of reading they liked best. While no one kind of story was an outstanding favorite, the boys rated adventure first and the girls showed a slight preference for mystery stories.

Books involving handicrafts were ranked third by both boys and girls. The principal differences between the boys and the girls appeared in the strong interest of boys in space travel and the greater popularity among the girls of books about famous people.

One of the major trends in the publishing of books has been the development of paperback editions. About 20 per cent of the boys and girls said that they read the paperbacks.

To a question about the reading of series books, most pupils responded that they did not read them. Of those who did (about 35 per cent) the boys outnumbered the girls. The *Landmark Series* was most widely read by the boys; the *First Books* were most popular with the girls.

Both boys and girls listed *Life* first among best-liked magazines. Second rank was given by the boys to *Boy's Life* and third to *Look*. The girls gave second place to *Look*, and third to *The Saturday Evening Post*.

As favorite parts of the newspaper, boys placed sports second to the comics. Girls ranked news second to the comics.

Sex differences were pronounced in the titles of books reported as read voluntarily by pupils in grades 3 through 6. The pupils turned to old favorites frequently. *Little Women, Cinderella, Snow White,* and *Heidi* were given ranks 1, 2, 3, and 4 by the girls while the boys listed *Black Beauty, David Crockett, Daniel Boone,* and *Huckleberry Finn* similarly. Few titles had more than five frequencies; again diversity characterized the choices of the boys and girls. The results of this study are similar to those reported in *The San Francisco Study of Children and Mass Communication.*

> . . . The favorite books they named in the fifth and sixth grades include some well-known titles which have given pleasure to earlier generations; for example, *Black Beauty* (12 votes), *Little Women* (8 votes), *Wizard of Oz, Heidi, Huckleberry Finn, Tom Sawyer,* and *Treasure Island* (3 each). But even these great old favorites attracted only a tiny percentage of the votes. The significant feature of the data on book titles was the spread, rather than the concentration.[4]

Our study yielded results somewhat different from the San Francisco on items related to the number of books read. In our studies, the pupils in the primary grades appeared to have read outside school about one and one-half books per month on the average; in the middle grades two and one-half books per month were reported. The peak was in the sixth grade. And in the high school, the average per month was about one book.

It is stated in the San Francisco Study:

> The amount of book reading increases from first grade through sixth, and girls read more books than boys. On the family interviews, children in the elementary grades could, on the average, give the names of approximately *three* books each of which they could recall reading in the last six months. The communication diaries—which in other media tended to give lower figures than did the interviews—showed fifth and sixth graders reading (or reading in) an average of 1.7 books each during the test week. It is probable, therefore, that the average student in the elementary grades, once he has learned the basic skill of reading, reads between one-half and one book per month during the school year.[5]

## Reading in the Seventh and Eighth Grades

Sex differences continued to be shown in the reading preferences of the pupils in grades 7 and 8. Stories containing the elements of adventure, mystery, and humor were well-liked by both boys and girls. The boys gave second place to science fiction and girls ranked stories of romance with those of mystery at the top of their list. The girls cited *Little Women, Senior Prom,* and *Double Date* as favorites while

[4]Stanford Institute of Communication Research, *The San Francisco Study of Children and Mass Communication,* Report 4, p. 2. Received February, 1959.

[5]Stanford Institute of Communication Research, *The San Francisco Study of Children and Mass Communication, op. cit.,* pp. 1-2.
See also *Television in the Lives of Our Children, op. cit.,* p. 36.

the boys chose in order *Tom Sawyer, Babe Ruth,* and *Robin Hood.*

The boys and girls tended to select non-fiction books in similar categories although the rank orders were different. Thus, the boys in grades 7 through 8 preferred in order books about space travel, famous people, travel, and handicraft, while the girls favored famous people, careers, people from other lands, and travel. Books about famous people were the best liked non-fictional reading.

Students in grades 7 and 8 reported reading paperbacks more frequently than did pupils in the earlier grades. More girls than boys stated that they read paperback editions. Thirty-eight per cent of the boys and 46 per cent of the girls said that they read paperbacks. And about 55 per cent of these pupils reported reading series books. *The Landmark Series* was the most widely read. The *First Books* were second in rank for the boys. Girls gave first place to the *First Books,* and second place was shared by the *Landmark Series* and *Bobbsey Twins.*

The seventh and eighth grade pupils ranked the picture magazines—*Life* and *Look*—as their top choices among periodicals read regularly. *Boy's Life* ranked third among the boys, and *American Girl* was the girls' third choice.

The newspapers read regularly by pupils in grades 7 and 8 consisted of the local morning or evening publications. The four parts of the newspaper generally preferred by the boys and girls were comics, sports, front page, and news. Boys placed sports second to the comics. Girls ranked news second to the comics and included sections such as the women's pages and "advice" columns, among other favored parts of the newspaper.

*Superman* was clearly the favorite comic magazine of the boys and the Disney type comic also ranked high at this level. There were conspicuous differences between the choices of the boys and girls. Boys tended to give higher ranks to thrillers such as *Superman* and *Batman* while the girls' preferences included more frequently magazines such as *Archie* and *Little LuLu.* There has been a marked decrease in the reading of comic magazines since the advent of TV.

As in earlier grades, *Dick Tracy, Nancy,* and *Dennis the Menace* were the popular comic strips; and there was marked similarity in the choices of the boys and the girls.

## Reading in the High School

Although secondary school pupils give less time to TV than elementary school pupils, they do not appear to do more voluntary reading. The average time spent daily was about one and one-third hours per day, with girls giving slightly more time than boys to reading.

The pupils reported that movies and television programs had influenced their reading of books to a greater extent than did the radio. Movies ranked first and radio third in influence among these pupils. Some of the movies had been seen on TV.

The girls gave fiction highest rank as the kind of reading they liked. The boys' first choice was newspaper and magazine articles. Second choice for the girls was articles in newspapers and magazines. Fiction was the second choice of the boys. Relatively small percentages of the pupils reported a liking for poetry, plays, or essays. But the girls expressed a greater liking for poetry and plays than did the boys.

Science fiction was among the preferences of the boys, but it did not appear high in the girls' choices. Similarly, romance and career stories were chosen as favorites by the girls but not by the boys. The boys indicated a stronger preference for adventure stories. Girls appeared somewhat more interested in humorous stories. In general boys expressed a preference for stories involving action and adventure, while girls generally preferred romance, mystery, and humorous stories.

The favorite book titles of the boys in the ninth and tenth grades were *The Yearling, Kon Tiki,* and *Around the World in 80 Days,* while the girls in these grades favored *Gone With the Wind, Little Women, Sue Barton,* and *Kon Tiki.*

The most popular titles of the boys in the eleventh and twelfth grades were *Kon Tiki, Old Man and the Sea, Tale of Two Cities, Huckleberry Finn, Cry the Beloved Country,* and *20,000 Leagues Under the Sea.* The favored title of the girls in the

eleventh and twelfth grades was *Gone With the Wind;* with *Tale of Two Cities,* and *Jane Eyre* next in favor.

The boys and girls tended to select nonfiction books in similar categories although the rank order differed. Thus, the boys in grades 9 and 10 preferred in order books about famous people, travel, and space travel while the girls preferred famous people, careers, and people from other lands.

The students were asked whether they read paperback books. Slightly more girls than boys said that they read the paperbacks. In the eleventh and twelfth grades, the per cent was about 35 for both the boys and girls. Forty-seven per cent of the ninth and tenth grade pupils reported reading series books as compared with about one-third of the pupils in the eleventh and twelfth grades.

The students consistently ranked the picture magazines *Life* and *Look* among their favorites. *The Saturday Evening Post,* news periodicals such as *Time* and *Newsweek,* and *Seventeen* also appeared frequently.

The newspapers read regularly consisted primarily of the local morning or evening publications.

Fewer comic books were read by high school pupils. As in the junior high school, *Superman* was the favorite comic book of the boys with *Donald Duck* in second rank. *Archie* and *Little Lulu* were the favorites of the girls. In general the boys tended to prefer thrillers, such as *Superman,* whereas the girls turned more frequently to humorous and romantic comic magazines. The favorite comic strip for both boys and girls in grades 9 through 12, was *Dick Tracy.* They also liked *Dennis the Menace.*

## Concluding Statement

Throughout the entire series of investigations the influence of the electronic Pied Piper was reflected again and again. There was evidence, too, that the domination of the mass media was gradually being accepted by parents and teachers. For example, although both parents and teachers set forth their concern about the possible ill effects of TV on reading, the number of such complaints decreased during the period of these investigations.

From our studies, it appears that the average amount of reading has probably increased a little since the advent of TV. This is shown in the reports on books read as well as the amount of reading pupils claim to have done before and after the advent of TV. Nevertheless, the small amount of time devoted to reading—about one hour each day—stands out in sharp contrast with the larger amount—three hours daily—given to TV by the elementary school pupils.

The present status of reading among children is by no means satisfactory. The average child does not appear to read widely. Moreover, there are many intelligent pupils who read little, as well as many others who are unjustifiably retarded in reading skills.

To offset the threat of the mass media to reading, both parents and teachers can make positive contributions. Parents can help by setting a good model for children. If they turn frequently to books for information and pleasure and if they read children's stories aloud, their children will probably conclude that it is worth while to read and will in turn learn to enjoy reading. If parents plan family recreational programs that include reading, televiewing, and other activities, children will be led increasingly to assimilate TV in well-balanced and individually suitable patterns of leisure activity. If TV programs are discussed as a basis for the selection of books, children undoubtedly will read more.

Teachers can make a significant contribution by striving to help boys and girls acquire more effective habits and skills in reading. They can assist further by more widespread efforts to develop in children desirable interests and more effective balanced patterns of recreation. They can seek too to help children improve their listening habits and their attitudes toward the place and value of reading today.

Parents and teachers together should encourage the development of improved commercial programs as well as more interesting, varied, and appropriate educational TV. By seeking improvement in present offerings, and at the same time by guiding children to choose programs with discrimination, they can give additional assistance in the wise use of this great medium of entertainment and enlightenment.



450,

142.

# 6. Research Reveals Questions Educators Raise About Individualized Reading

ELAINE P. WONSAVAGE

Teachers are seeking information about a promising method of teaching reading —individualized reading. They want to know the what, when, how, and why of the method. A questionnaire concerning the problems in individualized reading was sent out in 1962 by *My Weekly Reader* to 90,000 principals and supervisors. More than 5,000 answers were received. After tabulating 2,500 of the questionnaires, a pattern stabilized indicating what most principals and supervisors thought the problems of individualized reading were. Many respondents wrote comments and letters in addition to answering the questionnaire. The answers received raised many questions about individualized reading. Let's examine these questions and responses. Keep in mind, however, that many of these same questions could be raised about other methods of reading. The questions raised do not necessarily imply opposition to individualized reading, rather they indicate the need for help and information.

[9]Ruth Robinson, *Why They Love to Learn*. Charlotte, N. C.: Heritage Printers, 1960.
[10]Miriam S. Aronow, "Study of the Effects of Individualized Reading on Children's Test Scores," *The Reading Teacher*, 15 (November, 1961), pp. 86-91.



From the questionnaire, the tabulation showed that 86 per cent of the respondents favored individualized reading as a method of teaching. Frequently, however, this approval was qualified. Individualized reading did not mean the same thing to all people. It was most frequently confused with an independent reading program used in conjunction with reading taught in groups.

Several major problems concerned supervisors and principals in starting and carrying out an individualized reading program. Teacher readiness and understanding was checked by 77 per cent of the respondents as a problem. Concern was expressed about an insufficient supply of materials for an adequate program by 53 per cent of those who replied. The high cost of an individualized reading program was regarded as a problem by 31 per cent of those answering. Other problems checked by 5 per cent of the supervisors and principals could be classified as problems concerning the effectiveness of the teaching of skills in an individualized reading program.

The percentages given for each of the problems mentioned do not total 100 per cent because respondents often checked more than one problem that concerned them.

## Problem 1. Teacher Readiness and Understanding

Teacher preparation and background was the greatest problem according to the answers and comments on the questionnaire. Individualized reading was regarded as a more complicated and difficult method of teaching than teaching by the group method. Questions were raised about teacher readiness and understanding in the following areas necessary to the successful operation of an individualized reading program: (1) a wide knowledge of children's literature and the ability to select large numbers of trade books having qualities which interest children of a particular grade level; (2) the ability to assign reading levels to trade books; (3) a thorough knowledge of reading skills necessary to develop independence in reading, and the ability to teach these skills without the guidance of a manual; (4) the ability to prepare quality practice materials for skills improvement; (5) the ability to prepare questions for each of the trade books used in order to develop comprehension skills adequately; (6) a wide knowledge of diagnostic reading techniques in order to devise follow-up corrective programs; and (7) the ability to devise additional individual reading activities. Principals and supervisors question whether the average teacher can prepare the necessary materials and design 25-35 separate, individualized reading programs a year.

*Teacher time involved* in the preparation and maintenance of an individualized reading program was another concern of supervisors and principals. They questioned whether the average teacher is able and willing to spend the time to ensure a successful program. A time consuming job was considered the keeping and maintaining of an up-to-date record system of the skills developed, those in need of development, and the type and number of books read by each child. The teacher time involved in the role of librarian was mentioned as a problem. Frequent trips to the library and other sources for books, and maintaining a library system in the classroom take teacher time. Supervisors and principals also wondered how many of their teachers would spend time during the summer preparing and collecting materials for the initiation of an individualized reading program.

## Problem 2. Instructional Materials

*Cost of materials* for an adequate individualized reading program was consid-

451.

ered to be a problem by 37 per cent of those answering the questionnaire. Respondents stated that in some instances the funds from the local school board would not be adequate to provide sufficient materials for such a program. Some systems reported that a small amount of funds might be available from the PTA, but that this source could not begin to provide the money for the quantity of materials desired.

*Amount of materials* needed for an effective individualized reading program presented wide differences of opinion among principals and supervisors. According to the answers on the questionnaire, 10 per cent indicated that the minimum number of trade books for each classroom to carry out an effective program in individualized reading would be 25; 23 per cent indicated 50 books; 19 per cent felt 75 books to be the minimum; 34 per cent chose 100 books; and 4 per cent thought that more than 100 books would be needed. Ten per cent of the respondents did not check any category. These figures are interesting in light of two factors: first, the 100 books felt to be the minimum by the majority (34 per cent) is below the amount of books recommended by many authorities on individualized reading; and second, that an almost equal number of respondents (37 per cent) felt that the materials in an individualized reading program would cost more than the funds available for reading materials in their system. Don't these two factors raise a very practical problem?

*Sources for materials* for an individualized reading program were listed as: the classroom library; the school library; the public library; the teacher's personal library; and the children's home libraries. This writer would like to state that if a major source of books is to be the school or public library, many communities will have difficulty in obtaining sufficient materials. A December 1962 report by the United States Department of Health, Education, and Welfare stated, "about 128 million of our people have inadequate library services or none at all, and approximately half of these are in urban areas. About two-thirds of all the elementary schools in the country are without libraries."[1] For the schools to place additional demands on already inadequate services of the public libraries in order to provide instructional materials for individualized reading poses a genuine problem.

*Suitability of materials* used in teaching individualized reading concerned many of those answering the questionnaire. Questions were particularly raised about the use of trade books as materials of instruction. These questions pertained to the variety of type size, the uncontrolled sentence length, and the lack of vocabulary control found in trade books. People questioned the suitability of trade books to teach reading skills. Respondents felt that trade books were designed to teach an appreciation of literature, not reading skills. The question was also raised that if we are to teach word analysis skills to develop independence in reading in a sequential, developmental pattern, teach study skills, and teach comprehension skills, are trade books the proper material?

## Problem 3. The Skills Program

*Placement of skill building in individualized reading* and the method of teaching skills presented another problem to supervisors and principals. A concern was expressed over the lack of readiness procedures developed for each book in the individualized reading method. Questions were raised such as the following: Are skills taught at the proper time, and is the proper time before a child reads a book or as he reads a book? How can a child read with understanding if concepts are not clarified before reading? Will erroneous concepts and methods of word attack be developed and practiced? Can the teacher develop the reading skills a child needs in a five- or ten-minute conference once or twice a week or in an occasional group meeting? Can the child discover the various shades of meaning for himself? Which is better, to teach meaning of words directly or incidentally?

Some respondents were concerned that in teaching reading by the individualized method, the teacher might omit some

[1]Wilber J. Cohen and John G. Lorenz, "Library Services," *Health, Education, and Welfare Indicators* (December, 1962), page v.

skills, or might not be able to maintain a balance of skills that need to be developed in a particular grade. Also, some comments on the questionnaire were directed towards the lack of opportunity to develop critical thinking.

A substantial number of comments were made about self-selection as a method of teaching. The question was raised whether the child was being instructed on his recreational, instructional, or frustration reading level. In trade books there is no vocabulary control. How do teachers determine, then, at which level the child is being instructed?

*Allotment of time for teaching skills* was another concern. Most comments were directed toward the ability of the average teacher to develop the following in a conference lasting on the average of five to ten minutes: discuss the story; listen to oral reading and diagnose difficulties; teach detailed word analysis skills; guide comprehension; develop work-study skills; teach the child to adapt his reading rate to the material at hand; teach appreciation of literature; motivate the child to continue reading; keep an immediate record of what was done in the conference and what future needs will be; supervise the activities for the rest of the class; and supply unknown words to other children needing help.

## Summary

These questions are some of the many raised by educators about individualized reading. The questionnaire indicated great interest in the method, but also revealed an urgent need for answers to problems in initiating and carrying out this type of program. Ninety-two per cent of those answering stated they would be interested in learning more about individualized reading. The main areas of concern were: teacher readiness and understanding, instruction materials, and the skills programs.

Before putting an individualized reading program into operation, teachers, principals, and supervisors should consider the many problems involved and how to solve them. Without such thoughtful examination, the individualized reading method faces a future of frustration and disappointment to all concerned.

143.

Vol. 10, 1965

# SEQUENCE V
# CRITICAL READING

## A. PRIMARY LEVEL

### 1. Implementing a Critical Reading Program on the Primary Level

A. Sterl Artley
University of Missouri

How does the primary teacher teach critical reading, or critical thinking based on reading? There seems to be no royal road or short cut answer to this question. Regardless of grade, the essential process is that of raising questions or setting up situations based on the reading that requires an evaluative response, and then by a process of guidance helping the child think his way through to an answer.

The questions that call for a judgment or evaluation are quite different from those calling for the reconstruction of the writer's ideas. In evoking comprehension one asks a question the answer to which is found in the text, either stated or implied. For example, the answers to the questions, "What did the girls prepare for lunch?" "How do you know they followed Mrs. Stone's recipe?" come from the text of a second grade story. In one case the answer is stated on the second page; in the other it is inferred from what is said. But in both instances the answers are based only upon a comprehension of story content. However, the question, "Could you think of another way to solve Stacy's problem? Which do you think would have been better, yours or his?", calls for an analysis of the problem situation, and alternative solutions, and an evaluation of each against a criteria of "goodness." Here the child goes beyond comprehension to a critical reaction to a particular situation.

Let us now look at several situations on various primary levels and take note of the kinds of questions that might be posed to evoke a critical response as well as the process in which the reader engages. On the prereading level the first interpretive picture story in one readiness book shows three children riding bicycles and a toy car on a collision course. The teacher asks, "What will happen if all three children keep on going fast?" Based on the criteria of past experiences they pose an answer. Then the teacher asks, "What might be done to prevent a wreck?" Based again on a criteria of experiences the children come up with several possible solutions, each weighed by the group as to its effectiveness. By turning the page and reading the next picture they are able to see how the author resolved the problem and they proceed to evaluate their solution against the author's. The beginnings of the evaluative process are much in evidence at this early stage.

First graders are building an experience story related to an activity in which they have just engaged. The teacher says, "What would make a good beginning sentence for our story?" Several are suggested and against a criterion of what makes good beginning sentences for an experience story, one is selected by the children for the teacher to write. In fact, we could say that any reading situation, regardless of level, that gives the children an opportunity to face a situation having several alternatives, to weigh evidence, to face beliefs, to examine facts, "to examine with a critical eye," and to come up with a reason, a judgment, a conclusion, or a solution based on defensible criteria is one that provides an opportunity for critical reading. The differences from grade to grade are differences in level of maturity and quality of thought rather than the type of process in which the reader engages.

Or again on the second grade level after reading the fanciful story of "The Little Train in a Hurry," the teacher asks, "Was this a true story or a make-believe story?" "Why?" "What is the difference between a true story and a make-believe one?" And at this point, without calling it such, the



454.

children begin to formulate their criteria by which other stories might be evaluated. I hope in directing the reading of this story the teacher might go the extra mile and ask, "But why do we like to read stories where engines, and pigs, and geese talk?" For this will give some bright Betty a chance to reply, "Maybe because they give us a chance to see ourselves and some of our own foolish ways." For the little train in a hurry finally had to admit:

> I didn't go as fast as the horse.
> I didn't go as fast as the bird.
> But I went as fast as I could.
> That is all any train can do.

The reading that children do as it relates to their social studies units, their science projects, and their weekly news magazines—any kind of reading—gives the teacher a chance to initiate questions of the open-end type beginning with, "Do you think . . . ?" "Why did the author . . . ?" "If you had been . . . ?" "What made you say that . . . ?" "Do you suppose . . . ?" "What is the evidence for . . . ?" Following his initial response to questions such as these the teacher's next question is, "Why?" The common element in all these situations or questions is that they ask the child to look at the facts or ideas in the story or article, and make some kind of evaluation and express an opinion or make a judgment. Not only is the reader asked to make an appraisal, but with the question, "Why," he is asked to examine and come forth with his criteria for making it.

It appears to me that in the teaching of critical reading one of the most important understandings to be developed early in children is that for a judgment to be valid it must be based upon defensible criteria. The teacher's questions, "Why do you think the way you do?" or "What are your reasons for . . . ?" may point up the fact that the reader either has no basis for his evaluation, or that the basis is very tenuous. The primary grades are not too early to begin the development of these kinds of understandings. Further extension of this basic understanding will lead the reader on more advanced levels to recognize the fact that at times his judgment must be withheld until he has evidence to substantiate it. Growth in this direction will prevent the many quick trigger opinions that adults give and the judgments they make on the spongy ground of bias and prejudice.

455.

144.

## C. SOME OUTSTANDING DISSERTATIONS

331.

# 1. The Visual Perception of Children in the Primary Grades and Its Relation to Reading Performance

PATRICK ASHLOCK
Elmwood Park Public Schools
Elmwood Park, Illinois



VISUAL perceptual factors are of central importance in the psychology of reading. If the young child encounters difficulty in perceiving visual symbols, he usually develops reading problems. In order to help children with this type of reading problem, the educator must often attack the more basic problem of inferior visual perceptual performance. To better educate in this area, it is important to know more about unimpaired visual perceptual development. For this reason, the present study was undertaken at the primary grade level using subjects who had no known learning handicaps.

### The Research Problem

This investigation was concerned with accumulating data which might help in answering the following questions:

1. Are some types of visual perceptual tests more highly related to reading performance than others?
2. Is visual perceptual performance, to some extent, a function of the nature of the stimulus? For instance, is alphabetic material most difficult, digital and geometric material moderately difficult, and pictorial material least difficult?
3. Does the importance of visual perception, as a predictor of reading performance, decrease as the grade level increases?

In order to hold verbal intelligence constant, the Vocabulary subtest from the WISC was administered.

*Subjects:* Children in the second semester of first, second, and third grades were used as subjects. Fifteen boys and 15 girls in each grade constituted the sample.

The children did not have any serious language or bilingual problems. As measured by an administration of the Massachusetts Vision Test, the children did not have any serious uncorrected visual acuity defects. As measured by the Sweep Check Test, the subjects did not have any serious uncorrected auditory acuity defects.

*Study Procedure*

FIGURE 1
TESTS USED TO MEASURE TYPES OF VISUAL PERCEPTION

| | |
|---|---|
| To test perception of alphabetic symbols. | 1. Visual Attention Span for Letters from the DTLA*<br>2. Ashlock Tests of Visual Perception—Test 1: Word Forms**<br>3. Ashlock Tests of Visual Perception—Test 2: Phrase Forms |
| To test perception of geometrical and digital symbols. | 1. Coding from the WISC***<br>2. Block Design from the WISC<br>3. Memory for Designs from the WISC |
| To test perception of pictorial symbols. | 1. Visual Attention Span for Objects from the DTLA<br>2. Object Assembly from the WISC<br>3. Picture Completion from the WISC |

*Detroit Tests of Learning Aptitude
**Developed by the investigator for this study
***Wechsler Intelligence Scale for Children

FIGURE 2
TESTS USED TO MEASURE READING PERFORMANCE

| | |
|---|---|
| To test reading performance | Primary Word Recognition*<br>Primary Sentence Reading*<br>Primary Paragraph Reading*<br>Advanced Word Recognition**<br>Advanced Paragraph Reading** |

*Gates Primary Reading Tests: Form 1
**Gates Advanced Primary Reading Tests: Form 1

*Procedure:* The reading tests and the Ashlock Tests of Visual Perception, being group tests, were administered in the classroom setting. All the other tests were administered individually. The total testing was completed in one month's time.

The first question was tested by correlating each visual perception test with reading performance. Each correlation was then converted to a Fisher *z* score. The three Fisher *z*'s for each category of visual perception tests were averaged. An analysis of variance was carried out to test the significance of the difference between these means.

The second question was tested through the use of two analyses of variance for repeated measurements. Sex and visual perception tests representative of their types were the variables in the first analysis, and grade level and representative visual perception tests were variables in the second.

The third question was tested through the use of multiple correlation. It was hypothesized that for first grade children, there would be a significant difference between the multiple R with visual perception variables included and the multiple R with visual perception variables excluded. It was postulated that the significance of the difference between the multiple R's as stated above would be less for the subsample of third grade children.

### Results

*Question 1:* It was found that there was not a statistically significant difference in *types* of visual perceptual tests as to how highly they were related to reading performance. However, the highest predictors of reading performance were the three alphabetical tests of visual perception. The correlation of each of these tests with reading performance was: Visual Attention Span for Letters, +.65; Ashlock Tests of Visual Perception—Phrase Forms, +.58; Ashlock Tests of Visual Perception—Word Forms, +.49.

*Question 2:* The proposed hierarchy of difficulty of perceptual tasks was not found to be present at any grade level. The results of this investigation indicate that the hierarchy of difficulty in visual perceptual tasks may differ depending upon whether the subjects are boys or girls. Also, the structure of the hierarchy may differ depending upon what grade level is being studied.

*Question 3:* It was found that the importance of visual perception as a predictor of reading performance was less as the grade level increased.

### Discussion and Conclusions

In considering the results of the testing

456.

of the first and second questions, we must face the problem of not being able to measure visual perception in its pure form. It may not have been possible to measure *types* of perceptual tests because of all of the other factors such as time limits, memory factors, knowledge of environment, manual motor response, and ability to follow directions of varying complexity which are involved in different tests of visual perception.

In interpreting the results of the testing of question three, it is interesting to note that there is a drop in the significance of the F-ratio for the difference between the multiple R with visual perceptual variables included and the multiple R with visual perceptual variables excluded at the second grade level. The F-ratio at this level is 1.97, and not statistically significant. This might be explained by the fact that second grade reading material presents few visual perceptual demands not found in books designed for grade one. Therefore, if visual perceptual tasks are mastered at grade one, this type of skill may not be of so much importance at grade two. But at grade three, the print becomes smaller, the pictures fewer, and there is an increase in the number of words per line; this may explain why visual perceptual skills again become important at grade three.

**Recommendations**

1. The Memory for Designs test should be further analyzed. There are three parts to this test: Part A, which calls for a manual reproduction of an available visual stimulus; Part B, which calls for a memory completion response; Part C, which calls for a memory reproduction response. Although there are no norms for these separate parts, the per cent of items passed for each test might be correlated with reading performance to help determine which associated non-perceptual skills may be involved in the unexpected high order positive correlation between this test and performance on the Gates Primary Reading Tests and the Gates Advanced Primary Reading Tests.

2. The third question should be tested again as it was in this study, but using a new sample. The value of this approach would be to determine whether the drop at grade two in the difference between the multiple R with visual perception variables included and the multiple R with visual perception variables excluded holds up during a repeated study using new subjects.

3. The same question might be tested using a longitudinal approach in which the same 30 children might be tested at the end of grades one, two, and three. This would give the investigator the opportunity of observing the visual perceptual and reading performance of the children as they matured, thus giving added significance to the results that might be obtained.

4. We should have more investigations of the visual perceptual behavior of "normal" children.

5. We need to develop more "test and teach" materials for use in helping children develop their visual perceptual performance to the highest levels possible.

145.

32.

## B. UPPER ELEMENTARY LEVEL

### 1. Improvement of Reading through Instruction in Listening

MARTHA LOU AUSTIN
University of South Florida

IN THE LITERATURE on listening and reading one can find results which indicate that pupils learn and remember more through listening than they do through reading during the elementary grade years. In addition, it has been found that listening ability can be improved through practice. Studies have also shown that when direct attention and practice is given in listening for certain purposes improved reading for those purposes also results.

#### Comparison of Listening and Reading

There are similarities and differences in both modes of communication. The major difference is the sensory modality through which comprehension occurs. The ear is the sensory channel through which interpretation of the spoken word or words is possible; the eye the channel through which written material is interpreted. Another difference is in the situation: in listening there is a social, or audience, aspect in which more than one person is involved; reading is a solitary occupation.

Common elements are involved in both listening and reading. Both are aspects of communication. Both involve meaningful associations with oral or graphic symbols and interpretation of word units in context of larger units. Discriminating of words; vocabulary and concepts; ability to concentrate on the task at hand; experience with language; purposes, either for information or enjoyment; anticipation of meaning; imagery; mental reorganization of ideas gained; thinking with words — these are similar behaviors whether one reads or one listens.

Listening, like reading, has many levels ranging from the perception of the word heard or seen, to literal comprehension, fusion of ideas and, thence, to critical

458.

reaction or creative endeavors. One cannot always be certain to which level others are referring when they say "listening" or "reading" since both involve skills all the way from the mechanical aspects of word recognition (process) to information or enjoyment (products).

Many textbooks and curriculum guides list separately the reading and listening skills to be developed, but few interrelate them in such a way that the teaching of one may enhance the other. It would seem much more profitable to focus attention on the skills that are common to both, and to provide practice in teaching the two concurrently. If direct practice in listening can improve reading in the intermediate grades, certainly a planned program in teaching skills common to both, beginning with listening and followed by practice in the same skill in reading, would have merit.

Pratt and Green have listed the following listening skills:

I. WORD PERCEPTION
   A. Recall of word meanings
   B. Deduction of meanings of unknown words
II. COMPREHENSION OF IDEAS
   A. Noting details
   B. Following directions
   C. Organizing into main and subordinate ideas
   D. Selecting information pertinent to a specific topic
   E. Detecting clues that show the speaker's trend of thought
III. USING IDEAS TO BUILD UNDERSTANDINGS
   A. Evaluating an expressed point of view or fact in relation to previous learning
   B. Making justifiable inferences

I believe we would all agree that these skills are also the skills with which we are concerned in the teaching of reading. I would, however, add another to their list under "word perception" and that is discrimination—or the ability to differentiate likenesses and differences in words. I would further add another category having to do with listening for enjoyment to a story or poem well told or read, because interest in reading for oneself can be developed through listening to content that gives personal satisfaction.

## Preparation for Listening

We are all cognizant of the fact that some pupils are poor listeners. This may be due to several reasons. Among them are: the teacher himself; the purposes for listening are not made clear; physical factors which distract; and health factors which prevent the pupil from giving attention. One important task of the teacher is to create and maintain a "listening climate" since concentration on the task at hand is an important requisite to both listening and reading. Simple standards developed with the pupils should aid in the improvement of concentration in both communication aspects.

## Activities for Listening and Reading Improvement

There are several ways a teacher can provide practice in sounds listened to and sounds read, either to large groups, to small groups or to individuals. One means is through using the tape recorder in programing a lesson, and having the pupils listen through earphones in order not to disturb those working at other tasks. This should insure active participation of each pupil. Word perception exercises in listening and reading might involve listening first to consonant blends or digraphs with which pupils have been having difficulty, then practice in using these blends in analyzing words in reading.

The pupils might listen to the beginning blend of *scrape, scratch,* and *scrimp,* paying close attention to the sound of the three letters. This would be followed by practice in pronouncing words and reading sentences which contain these elements. Then they might listen for another blend, such as words that begin like *stray, straight, stream,* and follow the same procedure. After these two elements have been listened to and read both in isolation and in context, a lesson might follow on discriminating between the two both auditorily and visually.

For example, a teacher-taped lesson might proceed in this manner: "You have a worksheet with some words and sentences. You are going to listen for the beginning sounds of the words. Ready? *Stray, stream, stretch, strength, straight.* Did you hear the beginning sound of the words? What letter combination do you use for this sound?" Pause for response.

"If you said 'str' you are correct because all of the words began with 'str.' Listen again, but this time use your word list. After I pronounce each word, move down to the next word so that you are looking at each word as I say it." After auditory and visual presentation of the isolated words, the pupils are asked to find the first sentence, to listen to the sentence, "The road runs up and down hill, and around the mountainside so it is not straight," and be able to underline the correct form of the word *straight*. The pupils must choose between the three visual presentations *staight, straight, sraight*. Other sentences such as this, or short stories, could follow to give the pupils practice in visual scrutiny of words, and matching sight with sound.

Vowel sounds are particularly troublesome to some pupils. Listening for certain vowel sounds, then immediately applying the same kind of practice to analyzing monosyllable words, followed by multisyllable words both in isolation and in context, should be beneficial. The teacher might program the teaching of a vowel element as follows:

Listening to sentences and stories and supplying missing words is a means of using context for clues to word perception. Such an exercise might include several sentences read by the teacher, another pupil, or on tape recorder with a word omitted as pupils listen and supply the missing word. The teacher or a pupil might list the words supplied on the board and the pupils then have a worksheet of the same sentences to read and fill in the correct word. The sentences could be in the same order or in scrambled order, depending upon the reading ability of the pupils. This could be followed by new sentences or paragraphs or short stories with words omitted and pupils choosing from a list of words the one which fits best the meaning, first through listening then through reading. Variations of this are the use of synonyms or antonyms for certain designated words in the sentence or paragraph.

In listening for information as well as reading for information, pupils are aided by having clear purposes set. This also aids concentration and retention of information. They might listen for the sequence of a story, be asked to enumerate what happened first, second, third, and so on, then be presented with the story in scrambled order to read and arrange the way the story happened. Another variation is to listen to a paragraph and decide from a list of titles which best fits as the main idea. Then, they might read the paragraph to check themselves on whether they chose correctly from listening, or were better able to choose after having listened and then read the material. Discussion could follow as to whether a pupil stayed with his title—or main idea—or whether and why he did or didn't change.

We are all aware of the fact that not all pupils in the intermediate grades are able to read the subject-matter texts with facility. Here, too, listening could better prepare pupils for reading—not by having the better readers take turns in reading the material aloud but by involving each member of the class in listening for a specific purpose.

Suppose that you are preparing to teach location on maps and globes in social studies. Specific terms to be mastered are latitude and longitude. After discussion of the meanings of parallel, meridian, latitude, and longitude, the pupils might be asked to listen to a paragraph for the purpose of deciding if it adequately defined "latitude." Or they might be asked to listen for the specific term that measured distance, or to determine whether latitude was described as north and south of the equator or east and west of the prime meridian.

The pupils could then read a paragraph, following the same lines as the paragraph used for listening for information, but paraphrased, and select sentences that explain or define latitude and longitude. Discussion might include pronunciation, writing words on the board, syllabicating the words, discussing rules of syllabication (whether the words follow the rule or deviate from it; whether open or closed syllables are present, and which vowel sounds are used in pronunciation of words). Explanations and discussion of meanings through use of globes could be followed by sentences or paragraphs that call for social studies meanings and dictionary or glossary prac-

tice in choosing the correct definition for the way the word is used.

Following vocabulary study, pupils read the text for certain purposes: either to find out *what* happened, *where* it happened, *how* or *why* or *who* it happened to. If it is not possible for the teacher to get easier material on the subject under study for those pupils for whom word recognition is a problem, he might have pupil teams with one reading and one listening in turn, then together writing the information dealt within outline form. The outlines could then be used as a guide, and the more able student could aid the less able student in writing his own text to read.

Another product of both listening and reading is enjoyment or pleasure in a story or poem. Interest in reading for oneself can be developed through listening to entertaining, humorous, adventureous, or mysterious stories. Tall tales are especially liked by most pupils in the intermediate grades. Have one book or story and let pupils take turns reading aloud while the others listen, passing the book from pupil to pupil. This should be a story either unfamiliar to them or a well loved "repeater" they like to hear over and over. Have the pupils listen for exaggerations; listen for pictures they "saw" to promote visual and auditory imagery; and listen for colorful descriptive terminology. A variation of this is stopping before the climax of a story and asking the pupils to tell their own versions of the ending, then comparing the various endings with the original story. Some pupils might want to write their endings. These could be put in folders, illustrated, and made available so that the pupils could read each others' endings. Deciding which ending they liked best, and why, might make for some provocative discussions.

Materials for use in listening can be adapted for use in reading. The reverse process can operate as well. We have already mentioned the possibilities of the tape recorder in teaching word perception; it also has its uses in listening to stories for various purposes. The Language Master (Bell and Howell) is also a useful instrument for combining listening and reading in word perception. The SRA Reading Laboratories have materials for listening and reading; power builders and rate builders can also be adapted for listening. Textbooks, workbooks, and library books can also be used in devising listening activities prior to reading. Source material for the teacher is included in the bibliography of this article (2) (3) (4) (5).

Obviously, we could not discuss all the possibilities for relating the common elements of listening and reading in the short space of this paper. We have, however, suggested, through examples, some ways the teacher can interrelate these two modes of communication. It seems more profitable to teach the two concurrently rather than to teach them separately and depend upon the pupils to recognize when and how their listening skills can be applied to their reading skills.

### REFERENCES

1. Pratt, Edward, and Greene, Harry A. "Training Children to Listen," Monograph for Elementary Teachers No. 80. Evanston, Illinois: Harper and Row, 1955, 2-3.
2. Russell, Karlene V., Murphy, Helen A., and Durrell, Donald D. *Developing Spelling Power.* Atlanta: Harcourt, Brace & World, Inc., 1957.
3. Russell, David H., and Russell, Elizabeth F. *Listening Aids Through the Grades.* New York: Bureau of Publications, Teachers College, Columbia University, 1959.
4. Scott, Louise Binder and Thompson, J. J. *Phonics in Listening, in Speaking, in Reading, in Writing.* St. Louis: Webster Division, McGraw-Hill Book Co., 1962.
5. Wagner, Guy, Hosier, Max, and Blackman, Mildred. Darien, Conn.: Teachers Publishing Corporation, 1962.

461.

146.

Vol. 9, 64

# 3. Integrated or Interrelated?

115.

ALTHEA BEERY



READING involves some elements that are common to all the language arts. An exploration of these should help determine the relation of reading to the total language program.

## Common Elements

1. Ideas are expressed in words. These words are put together, usually in sentences. There is a natural word order in English which young children acquire unconsciously as they listen to speech and learn to speak themselves.
2. Word meanings do not change with the mode of language used. However many meanings a given word may have, each meaning is essentially the same whether heard, spoken, read, or written.
3. The basic function of language is communication, which requires organization of ideas. Pauses in speech and modulation of voice are indicated on the printed page by capitalization, punctuation, paragraphing, and other devices, such as topic headings. The oral reader must convert these signals into natural oral speech.
4. All phases of language growth are related to the maturation of the child. More subordination and elaboration of ideas occur with the twelve-year-old child than with the beginner. Maturity is reflected in the increasingly involved sentences the older child can read and understand; similar differentiation occurs in the child's speech and writing. Harmonious development is preferable. The underprivileged child who remarked, "I can read better than I can talk," was aware of her poverty in oral language.
5. Language flourishes in a social setting. Educators take this for granted in listening and speaking; it deserves consideration also in reading and written expression.
6. For the young child, language is rooted in experience. Reading uses abstract symbols, but with ability to read and sufficient previous contact with reality, reading itself is a form of experiencing.
7. The natural order in which language strands develop has usually been given as listening, speaking, reading, and finally writing. Educators agree with linguists that oral language is basic. In certain quarters at present, the sequence of reading before writing is being challenged, some authorities believing that both should be taught simultaneously. Whatever the order of initial presentation, the close interrelation of the four strands indicates that learning the skills of reading is enhanced when listening, discussing, and writing find their appropriate place in reading instruction. In my judgment, this position does not preclude regular periods for teaching reading.

## Questions to Ask Ourselves

Reading is so fundamental to continuous learning in a world of exploding knowledge, that lay persons, as well as professionals in other fields, are questioning the effectiveness of present methods and many panaceas are being offered. To take stock and improve results, persons responsible for reading must give thoughtful answers to the following questions.

1. How much oral language competence is pre-requisite to learning to read? To making normal progress?
2. How can concern for reading competence be shared by all who teach the child?
3. What plans are being made to acquaint teachers with new developments in reading—linguistics, experiments with young children, individualized reading, programed learning?
4. What advantages and disadvantages has each new approach or teaching procedure. If the results of research and local study lead to use, how can teachers make the most of the advantages and minimize the disadvantages?
5. Should beginning reading materials be limited to regularly formed words or regular symbols for sounds? Should the main reliance be placed on the writing of personal experiences, on basal reading materials, on individualized reading, or on some combination of these? How free should the individual teacher be to choose his own way of developing reading power?
6. When and how should children be introduced to such language conventions as usage, patterns in spelling, capitalization, and punctuation?

The comprehensive question we have been dealing with is: To what extent shall reading be interrelated or integrated with the other language arts? Doubtless, the answer will vary with the size of the system, the competence of the leadership team, the knowledgeability of the parents, and the abilities of the teaching staff. Today, study groups of teachers would seem to be as necessary in reading as in the new mathematics. The best program will result when the classroom teacher is treated as a professional person who has a frame of reference to give direction, but is relatively free to adapt materials and procedures in ways he feels will best meet the needs of his pupils.

462.

147.

# CURRICULUM BUILDING IN READING

## A. PRIMARY LEVEL

### 1. Strategies for Teaching Sound-Letter Relationships

MORTON BOTEL
Bucks County Public Schools

TODAY'S TEACHER has a real problem in planning and teaching phonics or word attack. He has his choice of the use of simplified alphabets, color, linguistic programing, "programed learning" materials, new phonics programs in basal readers, spellers, language books, workbooks, filmstrip, tape and computer form. These alternatives have increased the problem of making judgments about what should be taught and how it is to be taught.

Not too many years ago, the matter was more simple. Word attack was taught as the fourth or fifth step in a reading lesson. The content was built into the design of the lesson by the authors of basal readers. With a minimum of supplementation, teachers felt that these guidebook and workbook activities, correlated as they were with the story in the basal reader, provided the material needed to do the job. But in the last decade or two, methods and materials for teaching pupils how sounds are represented by letters have proliferated. This has happened partly, of course, because of a pendulum swing back to "phonics." Much vital and productive activity, however, has come from new insights into linguistics, the perceptual process, inductive or discovery methods of teaching, and the overriding concern for intensifying instruction for every pupil at his own level and rate.

I would like to suggest five standards my colleagues and I have used as the basis for the development of a program for teaching sound-letter relationships. Perhaps these standards might serve as guidelines for teachers who are developing or evaluating the validity of programs in this aspect of reading and spelling.

#### Standards for Teaching Sound-Letter Relationships

1. The program must provide linguistically sound content and structure.
2. The program must provide for self-discovery by the pupil.
3. The program must provide multisensory experiences including touch and movement.
4. The program must provide pupils with opportunities for the application of skills in many settings.
5. The program must provide opportunities for each pupil to work at his own level and rate.

Obviously, the "strategies" referred to in the title of this paper have to do with a technology which provides strong affirmative answers to the questions suggested by the standards.

For each standard I will discuss elements of a program that contribute to better pupil understanding of sound-letter relationships.

1. *Is the program linguistically sound?* In the light of present day linguistic research, a program designed to teach sound-letter relationships should, I believe, have the following characteristics:

a. It should include strong emphasis from the beginning on the idea that vowel and consonant speech sounds are represented by letters.

b. It should develop this understanding by programing its beginning vocabulary in large measure on words in which there is a one-to-one correspondence between sounds and letters.

c. It should present these words in spelling patterns in which there is a minimal contrast in sound and letter representation from word to word in the pattern.

d. It should lead pupils systematically and logically from such spelling patterns to those which are less regularly represented.



463.

e. It should include the study of vowel sound-vowel letter relationships practically from the beginning.

f. It should immediately provide oral experience in which the words studied are used in phrases and sentences so that pupils become aware of the need for thinking of the way the words sound in the larger intonational setting.

g. It should be flexible enough to include words which are less regular or even irregular in the early stages if these words are needed to make language more interesting, more meaningful, or more like the sound of language.

In short, linguistic research supports two major ideas which must be wed in programing sound-letter relationships: (1) it must capitalize on the consistent sound-to-spelling correspondences and patterns or rules in American-English spellings, and (2) it must immediately provide contextual settings for words studied that cause them to be used in a more natural linguistic environment.

2. *Is the program structured to provide for self-discovery by the pupil?* All of us as teachers respect the importance of discovery. Discovery is one of the most rewarding experiences in teaching. It might be called the "Aha!" experience . . . a gasp, the light dawns! "I've got it!" These are events teachers strive to bring about. How is this done in teaching sound-letter relationships?

As we have noted already, pupils must understand that spelling patterns represent sounds. We want this understanding to grow by their involvement in and exploration of these patterns. In this way pupils will be led to discover significant sound-letter relationships. I should like to illustrate a way of programing for discovery through pattern studies. We sometimes call such exploration the game of "What's My Rule?".

Put the following patterns on the chalkboard:

| *Pattern 1* | *Pattern 2* | *Pattern 3* |
|---|---|---|
| *hat* | *hat* | *hat* |
| *mat* | *hit* | *had* |

We ask pupils (1) to read the words in the pattern aloud, (2) to sort such words as *has, cat, hut, ham* and *hot* into the pattern sets, (3) to extend the pattern sets with other words that belong, and (4) to formulate the rule. Actually pupils who can sort given words into the right patterns and who can find other words that belong to the patterns, have "found the rule" in the most essential sense. The ability to verbalize the pattern or formulate the rule should not be hurried. Indeed, it is questionable whether it is helpful at all to many young pupils or to slow pupils to focus on the abstract statement of the rule.

Here are further pattern contrasts programed into the *What's My Rule?* form. Notice that they provide minimal contrast between words not only within a pattern but also from pattern to pattern:

| *Pattern 4* | | *Pattern 5* |
|---|---|---|
| bat | → | bet |
| mat | → | met |
| sat | → | |
| ↓ | | |

| *Pattern 6* | | *Pattern 7* | | *Pattern 8* |
|---|---|---|---|---|
| tan | → | tin | → | ten |
| pan | → | pin | → | |
| man | | | | |
| ↓ | | | | |

Here are further examples of patterns designed for discovery activity. Patterns 9 to 12 maintain the one letter-one sound change in successive words and between patterns as a way of introducing the spelling patterns of long sounds.

| *Pattern 9* | | *Pattern 10* |
|---|---|---|
| pan | → | pane |
| man | → | mane |
| can | → | |
| ↓ | | |

| *Pattern 11* | | *Pattern 12* |
|---|---|---|
| pan | → | pain |
| ran | → | rain |
| man | → | |
| ↓ | | |

The more complex aspects of sound-letter relationships in English are gradually presented in related patterns like these:

| *Pattern 13* | *Pattern 14* | *Pattern 15* |
|---|---|---|
| hope | snow | boat |
| home | low | coat |
| mole | yellow | soap |
| ↓ | ↓ | ↓ |

in which pupils get to know the alterna-

tive ways a consonant or vowel sound (long o in above patterns) is represented in English.

3. *Does the program provide multisensory experiences including touch and movement?* Certainly our knowledge of the psychology of perception should suggest a strategy for improving the quality of perceptual response to words and to spelling patterns.

In the earliest experience with words and patterns, all pupils should have experience in tracing and writing as well as seeing and saying these elements. Further, for those pupils whose memory is poor as evidenced by lack of recall or weak recall from day to day, tracing and writing should be extended.

At one time it was widely believed that tactile-motor experiences in learning words should be restricted to the language disabled pupil. Today, we are more and more coming to the view that such perceptual training should be developmental and preventive.

4. *Does the program provide opportunities for application of skills in many settings?* It is quite common for teachers to say, "Johnny knows the rule when we work with it on the board, but he can't apply it when he meets a new word in his reading or spelling."

The reason for a pupil's inability to apply rules in part resides in the way in which rules are taught. Frequently, pupils are too strongly directed toward the verbalization of the rule rather than to the pattern of words which are the substance of the formulation of the rule.

But even when the primary emphasis is on the pattern itself and when a discovery technique is used, we still will not get transfer to reading and spelling unless we program for it. Application of what the pupil learns about spelling patterns should be provided for in several different settings—in context and in lists.

Let us use the silent *e* spelling pattern as an example: Here are some ways in which we can help pupils make this pattern a tool for independence in word attack:

a. *In independent wide reading.* Have pupils read in self-selected materials. In such books, the transfer occurs naturally in a highly motivated reading environment. Certainly many new and unfamiliar words will belong to the silent *e* pattern and with the help of the context and the high interest, such words will be attacked in their most natural setting. This medium for application is like going into the water to practice a new swimming stroke. Is there a better way?

b. *In contrived sentences.* Have pupils read sentences made up to give emphasis to the principle. In such sentences, all words except the new ones should be known.

I *hope* to get a jump *rope* and *kite* for my birthday.
Please write your *name*, the *date*, and *place* you *came* from.
In the *dim* light, he saw a *dime* in the street.
He *made* us *mad* when he *spit* in *spite* of the warning.

c. *By extending patterned lists.* We have already indicated under the discovery method how pupils may extend any patterned lists as far as they can by finding words that fit.

d. *By having pupils invent and read aloud nonsense words.* Perhaps pupils can give meaning to these words by relating them to naming some new discovery in medicine or interplanetary travel.

spane
clibe
dufe

e. *By having pupils read aloud patterned lists of words with clues built in.*

| | |
|---|---|
| cap | cope |
| cape | cape |
| tape | tape |
| tap | take |
| tapping | bake |
| snapping | brake |
| snipping | broke |
| snipe | bloke |
| sniping | |

f. *By having pupils spell dictated lists and sentences which include words that fit the silent* e *pattern.*

g. *By having pupils spell words in self-dictated tests.* In such phrases and sentences as those below, pupils spell the word called for. These words are cued by a sound-spelling representation of the word, by context, or both.

to /tayst/ the food
a pretty snow /seen/
to slip and /sl___/ on the ice
The Navahos are an Indian /tr___/.

5. *The program must provide opportunities for each pupil to work at his own level and rate.* The word attack program must be tailored to the individual differences in level and rate to be found in every group. Many ways should be compiled by the teacher or by a staff for accomplishing this task of intensifying the instructional process. Three very important techniques in this category include:

a. Placing pupils at their instructional level in basal readers and textbooks; i.e., materials in which pupils read with at least 95% oral fluency and with at least 75% comprehension.

b. Using discovery activities such as those described earlier in which open-ended activities provide automatically for different levels and rates.

c. Testing to determine which spelling patterns pupils have mastered and which need to be reviewed or introduced.

In summary, by considering such matters as linguistic validity, self-discovery, perception, transfer of learning, and individualization of instruction, the curriculum builder will be able to develop or adopt programs which deal efficiently and effectively with the problems of sound-letter relationships.

### REFERENCES


1. Botel, Morton; Holsclaw, Cora; Brothers, Aileen. *Patterns in Spelling and Writing*, Levels A through F; *3140 Important Words;* and *1620 Power Words.* Chicago: Follett Publishing Company, 1963.
2. Fries, Charles C. *Linguistics and Reading.* New York: Holt, Rinehart and Winston, Inc., 1963.
3. Hall, Robert. *Sound and Spelling in English.* Philadelphia: Chilton Co., 1961.
4. Hodges, Richard E. "The Case for Teaching Sound-to-Letter Correspondence in Spelling," *Elementary School Journal,* 327-336, March 1966.
5. Lefevre, Carl A. *Linguistics and the Teaching of Reading.* New York: McGraw-Hill, 1964.
6. Lloyd, Donald J., and Warfel, Harry A. *American English in its Cultural Setting.* New York: Alfred A. Knopf, 1956.
7. *The Reading Teacher.* "Linguistics and Reading." Newark, Delaware: International Reading Association, December 1964.

148.

Vol. 8, 63

## 4. When Should Phonics Instruction Begin?

228. JOSEPH E. BRZEINSKI

It is said, that in other times, a favorite topic for discussion and debate was the number of angels who could stand on the head of a pin. Currently, in its ability to engender discussion, the subject of reading perhaps occupies a similar position. Whenever topics such as the teaching of phonics or of beginning reading are mentioned, quite strong views are expressed by parents and teachers alike. Professional journals, books, newspapers, and magazines have had numerous articles on these subjects. Many of the stories contain conflicting and quite contradictory claims and counterclaims.

Research evidence is inconclusive. As Russell recently wrote concerning phonics, "Unfortunately, no investigation in this area can be labeled definitive. At least thirty experimental or applied researches have been carefully done but they all have some limitations in score or technique."[1] That no definitive answer has been found is also reflected by the question under discussion, "When should phonics instruction begin?"

To remove this problem from the realm of fruitless discussion, the Denver Public Schools decided to obtain objective data concerning the subject. Some national publicity has been given to this effort. The purpose of this report is to provide information concerning this research project which may be of some help in answering the above question.

A great deal of time during the first year was spent in reviewing pertinent research. It soon became apparent that studies concerning beginning reading and phonics abound. However, because this is such a complex subject, most studies tended to investigate a fragment of the problem. This needs to be kept in mind when these research findings are cited. Then, too, the context of each research study needs to be remembered. In deciding when beginning reading and phonics should be taught, it is necessary to consider the individual learner, the kind and quality of the materials and processes to be taught. Obviously, the time at which a highly complex system of phonics dependent upon memorization of rules and their application could be taught would vary considerably from other less rigidly structured methods.

In summary, available research evidence appeared to establish that:

1. The mental age at which beginning reading and phonics could be taught is quite dependent upon the methods and materials of instruction.

[1]David H. Russell, "Reading Research That Makes a Difference," *Elementary English*, XXXVIII, No. 2 (February, 1961), pp. 74-78.

466.

2. Auditory perception and visual discrimination are essential for successful teaching of beginning reading and phonics. Some evidence also indicates skill in these areas can be developed by specific training.
3. Success in beginning phonics and reading achievement is highly correlated to the child's opportunities for reading prior to entry into first grade. Recent evidence supports the position that early knowledge of letter names and sounds correlates substantially with reading success in first grade.
4. Children have been taught beginning reading and phonics at ages earlier than at which they presently are being taught in most public school systems. More detailed and comprehensive investigations concerning introductory reading and phonics techniques in relation to individual differences remain to be carried out; for, in most kindergartens, quite a wide range of ability exists. Some kindergarten children may be capable of learning beginning phonic and reading skills.

Parenthetically, since the study began, there is a growing body of evidence to support the hypothesis that "The foundations of any subject may be taught to anybody at any age in some form."[2]

Reports emanating from Yale University, the University of Pittsburgh School of Education, and Teachers College, Columbia University, suggest that many three- and four-year-olds, if intellectually challenged and stimulated, can begin the intellectual learning process.

Perhaps, as was stated at the 1959 Woods Hole Conference, "Readiness, that is, is a function not so much of maturation as it is of our intentions and our skill at translating ideas into the language and concepts of the age level we are teaching."[3]

With guidelines similar to these in mind, a research design was carefully framed. Its main focus was an experimental comparison of beginning the teaching of reading through the use of phonics and meaning clues in kindergarten with beginning such teaching in the first grade. Six hypotheses were formulated dealing with the comparisons to be made among four treatment groups. The main variable distinguishing the groups was the time of beginning the teaching of reading—kindergarten versus first grade. Numerous other variables of importance were included. These were concerned with reading vocabulary, reading achievement, reading habits, the quantity of reading, the incidence of reading disability, and the like.

Because of the complexity of the research design and the need for carefully planned instructional materials, it seemed desirable to approach the project in a cooperative manner. Such an approach secured the competencies of each of the participants needed in a project of this scope. Serving in an advisory capacity in the initial formulation of the research design were Dr. Wilbur Schramm, Director of the Stanford Institute for Communication Research, Dr. Howard E. Gruber of the Behavioral Research Laboratory of the University of Colorado, and Mr. Theodore E. Albers, Director of Research and Statistics of the Colorado State Department of Education. Dr. John L. Hayman of the Stanford Institute for Communication Research is statistical consultant and analyst for the project. Working with the Denver Public Schools as reading consultants are Professors Paul McKee and M. Lucile Harrison of the Colorado State College. Reading materials produced by them comprised the trial reading program.

## Reading Method

Seven groups of beginning reading activities were developed. Primarily, these activities provided practice in using beginning consonant sounds with contextual or meaning clues to identify a printed word. In the pilot method, phonics, i.e., the teaching of letter names and sounds, played an important role along with the use of context or meaning clues.

The rationale for the system used is

[2]Jerome S. Bruner, *The Process of Education*. Cambridge: Harvard University Press, 1960, p. 12.
[3]Jerome S. Bruner, *On Knowing—Essays for the Left Hand*. Cambridge: Harvard University Press, 1962, p. 108.

based on the fact that kindergarten children can recognize many thousands of words when they hear them spoken. They know both the sounds and the meanings of these words. They do need to be taught that the sounds they know are represented by the particular letters and letter combinations in the printed words. This skill, united with contextual or meaning clues, provides early steps toward independent reading.

No workbooks were used in the kindergarten. The reading activities combined an auditory-visual approach suitable to group instruction. It has been suggested that the activities used are a kind of pre-reading or reading readiness program. Since readiness is a complex term subject to many understandings and misunderstandings, the teaching procedure was designated either beginning reading activities or simply reading. The method was designed to capitalize upon individual differences innate in children. Teachers were encouraged to advance at a rate consonant with the interest and ability of the children.

## Research Procedure

### *Preliminary Study*

In the Spring of 1959 the reading method developed was tried in fifteen kindergartens. Suggestions for improvements and modifications based upon this experience were received. While the materials were being revised, planning continued and a preliminary study was inaugurated in approximately 30 kindergartens during the second semester of the 1959-1960 school year. Purpose of the preliminary study was to test the research design which had been developed and to discover what problems might arise.

### *Main Study*

In the Fall of 1960 the Denver Public Schools, with the aid of a grant from the Cooperative Research Branch of the United States Office of Education, began a longitudinal research study to determine the effectiveness of beginning the teaching of reading in kindergarten. Progress of pupils in the project is to be studied through the fifth grade.

When the main study began, the Denver Public Schools had about 9,000 kindergarten children divided into about 300 classes. This study involved 122 classes randomly assigned by school to control and research groups. This resulted in 61 classes in the control group and 61 classes in the research group. Thus, approximately 4,000 pupils were divided equally into control and research groups.

The children in the control classes followed the regular kindergarten program. Children in the kindergarten research classes received instruction in the beginning reading activities every day. The remaining two hours and ten minutes of the kindergarten session was devoted to established kindergarten procedures. When the children in the study entered first grade, the research and control groups were in turn divided into two groups. This division provided four first grade groups.

Group I which had the regular program in kindergarten and the regular program in the first and later grades; Group II which had a regular program in kindergarten and the research program in the first grade; Group III which had the research program in kindergarten and the regular program in the first and later grades; and Group IV which had the research program in kindergarten and the adjusted program in the first and later grades.

Group I provided a necessary basis for comparison with the research groups. Group II permitted a comparison between groups who had received the same instruction introduced at different times. Group III made possible the assessment of the effect of early reading not followed up—a danger often encountered in a short-term study. Group IV was established to test the full effect of beginning reading in the kindergarten followed by a program accelerated to take advantage of any gains made.

The study is longitudinal and the pupils are to be tested periodically using standardized reading tests and other appropriate measures including specially devised tests and evaluative techniques. The primary variable considered was time of beginning reading. Other variables included mental age, chronological age, I.Q., and family characteristics. The principal

statistical technique used has been analysis of covariance. This method of analysis, in effect, equates or matches the groups being analyzed. Because the design has large numbers of experimental subjects, the statistical work has been programmed for computers.

## Results

Since the present study is of a longitudinal nature, any conclusions based upon the findings reported at this time must be considered tentative and applicable only to the trial procedures. Indeed, it would be well to view these conclusions as hypotheses subject to further testing, modification, or verification.

### *Kindergarten Findings*

Analysis of data gathered in the kindergarten was made to determine the suitability of the trial method and materials for that age level. This analysis involved a pretest administered in October 1960 and a post-test in May 1961. A teacher questionnaire provided additional information. The results indicated that:

1. Kindergarten children could and did learn certain beginning reading phonic skills.
   - Kindergarten-age children were able to learn letter forms, letter names, and letter sounds.
2. A planned program of systematic instruction in beginning reading skills appeared to be more effective than a program which incidentally provided opportunity for the development of reading growth. Both groups made gains. The classes with the planned program gained an average of 21.8 points while the classes with an incidental program gained 12.9 points. This difference was statistically significant at the .001 level of confidence.
3. Children taught the beginning reading skills in kindergarten did not forget them during the summer intermission. The possibility existed that since the pilot classes seemed to learn more than did the control classes, they would also forget more during the summer months. To test this hypothesis 49 children in the pilot group and 49 children in the control group were tested in September 1961 when these children had just entered first grade. The children in the pilot group had an average loss of 1.45 points while the children in the control group had an average loss of 3.47 points. The difference in these means is not statistically significant, seeming to indicate that the children in the pilot group maintained their advantage during the summer months.

That not all children progressed at the same rate is among other findings shown by an analysis of kindergarten data. Some children made little progress in learning the seven steps of the trial program. Some children were able to read preprimers and primers during the latter part of the kindergarten. Most children were able to recognize letters, to learn letter names and sounds, and with the help of context, to read words. Analysis of teacher questionnaires and interview data showed that growth in reading in the kindergarten could be achieved without greatly modifying existing kindergarten programs through better utilization of the time presently available.

### *First-Grade Findings*

Tests used to gather data in the first grade were the Gates Primary Reading Test and the Gates Advanced Primary Reading Test. Analysis of adjusted test scores suggests that

1. The children who had the beginning reading activities in kindergarten scored significantly better at the end of first grade than did the children who had the regular kindergarten program.
   - The pilot group which began reading in the kindergarten had an adjusted mean score of 114.35, which was 18.45 higher than that of the control group which started reading in the first grade.
2. Optimum reading achievement was obtained when adjustments were made in the first grade program to take advantage of gains made in the kindergarten.
   - Pupils in this category had an adjusted test score mean of 118.06. This was 10.70 higher than the group which had the beginning reading activities in kindergarten and the regular program in the first grade.
3. The time of introduction of the beginning reading activities had a significant effect on achievement. Those children who were taught the pilot materials in kindergarten were significantly better readers than those children who began the same method in the first grade.
   - The children who had the beginning reading program in kindergarten and continued with an adjusted program in the first grade scored 13.92 higher than those who began the pilot method in the first grade.



These differences reported are significant beyond the .001 level of confidence.

## Conclusions

Results at the end of two years of study appear to establish an advantage for children who had an opportunity to learn elements of beginning phonics and reading in the kindergarten. Knowledge of letter names, sounds, and forms, used in combination with context, seemed to help children progress successfully when they later began to read in books. A practical implication would be the provision of appropriate possibilities for growth in reading in the kindergarten. Growth in reading is too important to be ignored or left to chance incidental development. Results of the present research study suggest planning must occur if kindergarten-age children are to experience continuous growth in reading concomitant with their growth in other important areas. Experience has shown such growth need not be at the expense of growth in other areas vital to a sound, balanced program of kindergarten instruction.

149.

Vol. 8, 63



## B. National Conference on Research in English

### 1. Creative Writing Is Related to Reading

ALVINA TREUT BURROWS

Historically, writing had to precede reading. There could be nothing to read unless writing had been done, however long or short a time had elapsed between the first crude recordings and the translation back into sound and sense. It is an equally easy observation that one can read without being able to write. Some of us have experienced this in our limited competence in another language. But, contrariwise, one cannot write without reading one's own words. One can copy writing without making sense of it, but forcing symbols to convey one's meaning also forces one to clothe symbols with meaning which is reading. It is high time that we examine some of the relationships between learning to write and learning to read.

#### Dictated Composition as Beginning Reading Material

Good teachers for 50 or more years have used children's dictated composition as sources of reading content. Not all of the so-called experience charts thus produced could be called creative by any stretch of imagination, but many have elements of originality. Nearly all, even the dull pedantic ones, have some meaning for the pupils. So well known are the usual procedures of recording and reading children's dictation as to need no elaboration. Some of these charts include delightfully childlike expression. From a sequence of charts a reasonable repetition accrues and leads to a known sight vocabulary. From these activities children make a transition to reading of books and to word study skills.

This functional pathway to reading has been traveled by quite a few thousand children. I wish I could say millions. In my observation, children learn more productively from this natural blending of their own written expression with the words written by others than by other processes. That this is true is attested by the attempts by some commercial houses to combine writing and reading more directly in beginning reading systems.

#### Story Writing in Middle and Upper Grades

Other facets of human learning contribute to the mutual productivity of composition and of reading, especially in later grades. Though less obvious than the sequences of learnings in dictating and reading experience charts, they are no less vital. A story or two and later a bit of verse may serve to illustrate the phenomena of identification and projection.

**The Adventures of Professor Frazzle**

Professor Frazzle entered his laboratory in the Jones Building and took out a flask of hydrochloric acid and poured some in a tube. Next, he poured in some selenium oxychloride acid and filled it up with nitroglycerin. Soon the bottom melted out of the tube, and the mixture fell to the floor. It melted through that and in this way reached the middle of the earth. The professor took out his telescope and anxiously peered through it. He thought he saw a faint glimmer but he wasn't sure. He telephoned an asbestos company and ordered them to make an asbestos balloon. Next he telephoned one of his assistants and told him to find a company that made liquid air because he wanted to make a balloon to go to the middle of the earth.

Finally the day came when the balloon was completed. The Professor had received a telegram from his assistant the day before saying that he had found a company that manufactured liquid air and had ordered a supply of it. Soon a giant refrigerator truck rolled up. The driver got out and explained that he was from the Acme Liquid Air Company. He said that Professor Frazzle's 493 million, 673 thousand, 649 cubic feet of liquid air were here.

"But," exclaimed Professor Frazzle, "it is too much. I want you to take away all but five hundred cubic feet."

"Say, get this straight," said the truck driver. "I was supposed to deliver this, and I didn't have anything to do with the order."

"I don't care," said Professor Frazzle. "Take the rest away except the five hundred cubic feet." He went to his laboratory in a stamping rage, called up his assistant, and fired him on the spot. Next he called up

470.

one of his more reliable assistants and told him to find a company that manufactured chemicals. He ordered one hundred gallons of hydrochloric acid, one hundred gallons of selenium oxychloride, and seven hundred gallons of nitroglycerin.

When it was delivered the truckman dropped the huge container. It exploded with such enormous force that it dug a big round hole one thousand miles deep into the earth. This was exactly what Professor Frazzle wanted. He took his faithful assistant exploring with him in the balloon that was waiting. They made the most important discovery of anybody about the heat and the rocks that are in the middle of the earth. People are still studying about what they did.[1]

Jack read his story to me first and it was easy to see that the impatient but inventive professor was his swashbuckling protagonist. He read it later to the assembled fifth grade with obvious swagger and relish. Their laughter at the antics of both the assistant and the delivery man contributed to Jack's self esteem, thus lubricating the machinery of learning. Moreover, Jack, through his own characters and through his own words put down on paper, was practicing the skills of identification and projection so necessary to the intelligent reading of fiction.

The arts of oral reading are likewise used in reading one's own composition to an appreciative audience. Reading one's own stories is direct face-to-face communication; it is not an exercise in analysis or criticism. Comments are limited to noting enjoyable detail or lifelike character, to good ideas and inventions, to surprise turning of events, and to vivid phrasing and suspense. Reaction of the audience to excitement or tension is recognized by the reader. The deft sketching of a character or a whole picture, as in the case of the irate delivery man, enables both author and audience to play their mutual roles. One is implying a whole set of circumstances in a few words; the other is inferring these facts and relationships from the same few words. These skills are mutually supportive.

Another valued oral reading skill works in this sharing of one's own story with a close-knit audience. Children almost automatically, after gaining reasonable skill in reading, use appropriate intonation patterns in reading aoud their own material. I have seen a child read a paper innocent of punctuation with appropriate stress and terminal voice patterns. He was matching the patterns of speech melody, automated by practice since he first heard speech, to the sense he wanted to convey to his hearers. He knew, almost intuitively, that every English sentence has one emphasized or accentuated word. Now most children put in some punctuation as they write, even in stories. They supply a bit more as they practice reading alone before doing so for the class, and this suffices for the important goal of communicating the action and pictures of a story to the eager audience.

## Values of Children's Poetic Expression

There is one more aspect of composition that cannot be ignored and that is sensitivity to the beauty and power of language. Children—most children—love words. They love words for rhythm and mood and sense; for their length and brevity, for their mouth-tickling feeling. Power to shape words into pleasing forms so as to encase and transmit some of their own feelings is an experience that lifts children into a new world of power. Consider:

**Cherry Tree**

We've got a Japanese cherry tree
That grows in our backyard.
It glows with pink
And makes a background
For all the other things—
Like a candle in the corner.[2]

In quite another vein, but evoking a busy, bustling scene with a contrasting conclusion:

When I'm in New York
All I see is crowds—
Some going in theatres
Some going down the street
Some going in offices.
In the night
I see elevator lights:
The buildings light up,
They look like fireflies
Anchored in the air.[3]

[1]Alvina Treut Burrows and Russell G. Stauffer, *American English Book 6* (Teachers Edition). New York: The John C. Winston Company, 1962, pp. 243-244.

[2, 3]Alvina Treut Burrows, June D. Ferebee, Doris C. Jackson, Dorothy O. Saunders, *They All Want to Write*. New York: Prentice-Hall, Inc., 1952, pp. 133, 138.



And here a child has made the words themselves into a pattern beyond but framing his meaning:

The bee sang a song
Buzz-buzz-buzz
I wonder if he's mad
Buzz-buzz-buzz
He buzzed around the flowers
Buzz-buzz-buzz
He landed on my nose
Buzz-buzz-buzz
And now I know he's mad
Buzz-buzz-buzz
OW![4]

Even though the vast majority of our children will not become serious poets, they will almost inevitably value poetry if their poetic expression has been valued. Further, the economy of expression necessary in verse, with its deft selection of sensory detail, intensifies their awareness of good writing. At least a few students of composition are convinced that honest and satisfying attempts to write poetry, at very least, sharpen one's writing of prose. I think it very likely too, though I cannot prove it here and now. I am much more sure, however, that a child's lyrical expression fortifies him in his love of word patterns and visual imagery just as poetry fortifies him in his search for order and beauty, a search as essential to his own healthy, growing personality as it is essential for wise and creative reading.

150.



on the verbalizing of the rule—only on the ability to make it operate. Which method produces the best gains in word pronunciation, reading, and spelling? These questions were the basis of a recent study which investigated the relative merits of inductive and deductive teaching of word analysis.

This study was initiated in 1958 to investigate an apparent discrepancy between commonly held opinion about the teaching of word analysis and the results of research which had been done at Boston University in 1956 and 1957.

An investigation of the literature on the teaching of word attack shows that most writers suggest that children in the intermediate grades should approach word attack through a knowledge of the "rules" which govern syllabication, accent, and the pronunciation of vowels, and some understanding of the meaning of roots, prefixes, and suffixes. This theory of teaching word analysis is reflected in most manuals and workbooks of basal reader series and in independent "phonics" workbooks.

In apparent contradiction of the idea that "rules" teaching is required in the intermediate grades were the results of the Speidel and Spencer studies done in 1956 and 1957. Both studies showed that experimental groups which were given intensive practice in solving words in a meaningful context made greater gains in word attack ability than did control groups which used only the regular "rules" lessons provided in the basal reader program.

Both of the "meaningful practice" studies used a kind of word sorting exercise as a means of teaching word attack. Speidel wrote words on slips of paper and asked the children, working in pairs, to solve the words for sorting into boxes labeled with a category name. For example, boxes labeled *ZOO, FARM,* and *SCHOOL* were provided when the words *ostrich, kangaroo, tractor,* and *sharpener* were to be solved for categorizing. Each of the words was chosen with the idea that it should be a word understood by the children (that is, in their hearing vocabulary) but not yet presented in a reading lesson (that is, not yet in their reading vocabulary). The labeled boxes were, in effect, the context, and so the children,

Vol.7, 62

## 5. Inductive versus Deductive Methods in Teaching Word-Attack Skills

JANE CATTERSON

No one can become a rapid fluent reader unless he has good word-attack skills. That is, he must have a grasp of the phonetic principles which operate in the English language and the ability to apply them to words at a glance. How are children to learn these principles? Should they be presented as part of a system of "rules" and the children trained to arrive at correct pronunciations deductively through application of these rules? Or may the desired grasp of principles be developed inductively as words are solved in a meaningful context, when no attempt is made actually to state the rule formally? In the deductive method, some value seems to be placed on the ability to state the rule. In the inductive method, no value is placed

472.

while sounding, were sounding in a meaningful context.

Doris Spencer used the same type of exercise in a different format. In her materials, the words to be solved were printed on lesson cards—25 words to a card, 30 cards in the set, all cards of the same level of difficulty. On each card were listed 3 categories, and the children, after having copied the category names from a card to their own lined paper, worked at solving the listed words to write them under the proper headings. Since no marks were placed on the cards, one set of 30 cards could be used to provide for 30 pairs of children at a time and might be reusable from year to year.

In both the Speidel study and the Spencer study, the experimental groups made much greater gains in word analysis ability than did the control groups which used only the regular lessons of the basal reader. Obviously, one could conclude that children would benefit from the addition to the basal reading program of intensive practice in meaningful word solving. That seemed clear.

What was not clear was why these lessons were so successful. Was it because the *type of exercise* used was better for teaching word analysis than were the lessons of the usual program, or was the *quantity of practice* responsible for the gains? It was considered that an answer to this question should be sought, and an attempt made to evaluate the relative merits of the two methods of teaching word analysis. The plan was made that one experimental group should be given the Speidel-Spencer type of practice, which seemed to teach word analysis inductively; that another group should be given equally intensive practice with the "rules" type of material; and that a control group should follow the regular program of word analysis in the basal readers.

Two sets of materials were constructed. The pattern for the deductive teaching was taken from commonly used workbooks and exercises in manuals. Tasks varied according to the type of exercise used but no attempt was made to provide practice which drew attention to the meaning of words used.

For the inductive exercises, the Speidel-Spencer type of exercise was used. Lists of words and 3 category names were placed on each lesson card. The task for each lesson was the same: to solve the words for placing into one of the three categories named. In these exercises, then, the final step always required a synthesis of word parts into a meaningful whole.

Each set of materials had thirty lessons, and each lesson used forty words. Practice was provided, then, with 1200 words. The word list was the same for both sets, ranging in difficulty from grade 3 to grade 8, and working conditions were the same for both experimental groups: children worked in pairs, and materials were self-administering, self-correcting, and self-recording.

Thirty grade 5 classes in suburban Boston participated in the study. Ten classes used inductive materials, ten used deductive materials, and ten classes acted as a control group.

The experimental materials were used over a period of 3 months, from late November, 1958 to early March, 1959.

The tests given at the beginning and end of the experiment were: a test of general reading ability, a spelling test, a word analysis test which was essentially a test of ability to spell parts of words, a test of visual memory, a homophones test, and a word pronunciation test.

Major findings were these:

1. Both experimental groups made gains in word pronunciation which were statistically superior to the gains of the control group. Neither set of materials seemed to be generally better than the other in producing gains, although there was some evidence that the "word sorting" exercise was better for initially low achievers than was the "rules" material.
2. For the most part, the difference between the groups was not great on the other tests, although such differences as existed seemed to favor the "word-sorting" method.

As an added comment on these findings, I should say that we were rather disappointed not to be able to draw any conclusions from the results of the reading test. Unfortunately, the test used showed that all groups actually lost ground as the test measured them. Something might have been able to be concluded from the fact that the children using the meaningful materials lost least and the control group lost most. However, we felt that we could draw no proper conclusions from these figures.

From the results of this study we concluded that:

1. Intensive practice in word attack beyond the program of the basal reader is of benefit to intermediate grade children.
2. Word-attack practice in the intermediate grades need not be confined to the "deductive" type of practice which has been used by basal reading systems, but may employ the type of exercise which requires much practice in solving words in a meaningful context. In fact, poor readers may benefit most from meaning practice than from "rules" practice.

The inductive (that is, the "word-sorting") materials of the thesis have been published by Harcourt, Brace & World under the title *Word Analysis Practice.*

151.



ple who create books for children are certainly highly creative artists able to communicate their unique talents by words and pictures on the printed page. Children, the audience for these books, have that wonderful ability to be creative with such mundane articles as a sand pile and a spoon. What they are able to do with the products of others who are creative, in the form of a good children's book is, indeed, a phenomenon. Two highly creative individuals, one by fact of age and one by that yet undefined term "talent," interacting through a book form a mysterious, wonderful delight that comes only to our species, and unfortunately, only sometimes.

Who among us has not watched as Alice, Tom Sawyer, The Princess, Toad of Toad Hall, Mafutu, and even Max of the Wild Things, have worked their special brand of magic? Who among us has not had that special brand of magic worked on him? What is it that happens when the reader and a good book come together? It is, because we don't know what else to call it, a "creative experience," a time when man's unique ability to imagine, to mentally create, modify, or change a set of stimuli comes into play. "Creative thinking" has been defined by the experts again and again. The words "divergent thinking," "reorganization," "building," etc., are a constant thread through most definitions. Shakespeare called it "the mind's eye." However it is defined, it is an ability unique in man—an almost special gift that needs to be encouraged, developed, and prized as a part of every human being.

As educators, we are finding that the creative potential of our students is of concern to us. The creative, divergent thinker is one who is sought after by the professions and industry. He is a valuable person in our society. The work of E. Paul Torrance *(4)*, Alice Miel *(2)*, Alex Osborn *(3)*, etc., have given us valuable research and opinions in the area of creativity and the creative learner. Increasing evidence is pointing to the possible fact that the creative potential is a part of the intelligence quotient and should be fostered and developed by education.

Children's books, by their very nature,

## 2. Children's Literature and Creative Thinking

DEWEY W. CHAMBERS
University of the Pacific

THE TERMS "children" and "children's literature," to most people, are synonymous with "creative." The special peo-

474.

offer opportunities for creative thinking. The very fact that words in the form of abstract symbols are able to relate to children the adventure and beauty of a story is a pinnacle of creative achievement. The piecing together of symbols by an author and the reception and interpretation of them by a young reader are a rather remarkable task. Those symbols are, after all, just the remains of ink on metal, placed in an orderly fashion on paper. The meaning, the story, and the beauty are in the interpretation of those markings. The interacting with these symbols and the giving them the spectrum of meaning are the creative act. A book's value is based on mutual creation —on the part of the author and illustrator arranging symbols to convey their meaning and on the part of the reader in responding to the symbols and giving them personal meaning.

## Oral Reading

Interacting with books is usually thought of as a lonely experience, that is, the reader and his book together with the exclusion of outside groups. This way is the usual one of getting books and people together. With young children, however, the barrier of print is often too great to overcome; and therefore, the full creative aspect of interacting with a book, on a one to one basis, is impaired. What does one do then to bring this experience to children? One reads to them. Much of the same mutual creative experience mentioned earlier is achieved by oral reading to children and discussing the book with them. A good book, well read, opens up a world of opportunities to soar into creative thinking. Through discussion the plot, characters, setting, and time of a story can be expanded and personalized; imagery can be sharpened; interpretation can be compared and contrasted with others. Imaginations will be set to running and creative thinking will result.

## Dramatic Play

Creative drama, or pretending at play, is a natural part of being young. Most of us have watched while children free at play transform a classroom or playground with amazing speed and clarity into Fort Apache, Cape Kennedy, Dodge City, or Fire Station J. The creative imaginations of youngsters during times of dramatic play are a delight to behold.

Creative drama and children's literature have gone hand in hand for years. This highly creative activity has become an integral part of good classrooms across the nation. Its values as a way of encouraging creative thinking and enhancing the appreciation of good literature are almost limitless.

Children sharing a story, presented orally by the teacher, and the subsequent preparation for dramatization are an excellent way of getting "to the heart" of a good story. The discussion of characters, motivation, setting, time, emotional content, etc., can make literature an emphatic, dynamic experience. Creative drama with children's literature can bring print into vivid, physical life. The encouragement of creative, imaginative thinking necessary in the preparation for creative drama will result in helping children realize the magic and potential of the printed word. Dramatic play demands mutual creative effort between the author and his audience . . . an important step in the appreciation of literature . . . if the play is to be satisfying and successful. An experience with creative drama can start a whole new attitudinal syndrome on the part of the participant. The discovery that interpretation of characters, themes, and motivations within a given story can vary according to the receiver is a major step in developing literary awareness and sensitivity.

The following steps in creating a dramatic play situation with children's literature have been outlined by Fitzgerald: 1. Tell or read the story. (A story with high action and few well defined characters is best.) 2. Discuss the story with the children in detail. (Examine characters, setting, and motivation of activity in detail. Determine how the characters look, what kind of clothing they would wear, what the setting is like, why they behave as they do, etc. Break the story down into scenes or "acts" with the children. Choose one scene for play. Examine the scene for sequence of action, setting, characters, etc.) 3. Cast the characters with help from the children. (Let them know others will have a chance to play

the characters when the story is replayed.) 4. Play the scene. (Allow the players a few minutes of consultation before they start. Direct the remaining class to watch the play and to remember five (more or less) things they like about the play and five things they would improve when it is played again. Start the play with a signal that is understood by the entire group.) 5. When the play has been completed, stop the action and evaluate the play. (Ask the audience for points they have noted (step 4). Make sure positive points are expressed as well as the negative ones. Offer your evaluation, as well.) 6. Recast and replay the scene. (It is important that the steps outlined above be followed again. This repetition often spells the difference between success or failure with this technique.

The teacher needs to remember that dramatic play or creative drama is not theater for children. There are no scripts, settings, or costumes. The entire play period depends upon creative, imaginative, spontaneous play. The value lies in the creative process, not the final result, although the final result should be a satisfying one for the children.

Long, involved action in a story is often difficult for children to play. A story or scene should rarely go over five minutes for the beginner in dramatic play. As facility with this technique increases, longer time spans can be successfully used. Folk tales serve as excellent vehicles for dramatic play. Their structure and content lend themselves well to this kind of activity.

## Kaleidoscope of Opportunities

The bringing together of children and children's books presents a kaleidoscope of opportunities for creative thinking. The sorting out of possibilities and the direction they take are largely the task of the teacher. Placing a cap on the creative activity of children when they have had an opportunity to interact with good children's books is much like trying to cap a volcano mid eruption! The possibilities are unlimited.

The area of art as a way to express reactions to literature is a popular and exciting technique. Illustrating a story or a scene in a story or making portraits of characters is an excellent way of encouraging creating thinking and acting. Many books for the middle grades do not have the lavish illustrations of the picture story book. Here is an opportunity to let "the mind's eye" take on graphic form. Drawings or paintings by individuals, group-constructed murals, etc., can be rewarding and decorative activities. How do they see Aunt Polly's house? How does the Bull Ring in *Shadow of a Bull* look? What is so magical about *The Secret Garden?* Does *Mary Poppins* really look like Julie Andrews? What fun these projects can be . . . and creative activity is always fun!

Puppets and puppet theater offer additional opportunities for creative work with literature. Making a play from a favorite book can be delightful. A simple puppet theater and several puppets can equal a Broadway opening to fourth graders and probably be as creative. These productions can be as simple or as elaborate as the needs dictate. Tape recorders, background music, colored lights, and a good story can develop into a valuable unit of work.

The creative thinker is needed in our society. He is becoming a necessity. As teachers we need to encourage, develop, and foster creative thinking in our work with children. Few sources offer the possibilities for this valuable part of education better than children's literature.

Albert Einstein said, "Imagination is more important than knowledge." We do a fine job with the acquisition of knowledge. Think of the product our schools would develop if we combined imagination and knowledge in equal parts in our classrooms. It would take "creative thinking," indeed, to imagine the potential.

### REFERENCES

1. Fitzgerald, Burdette S. *Let's Act the Story.* San Francisco: Fearon Publishers, 1957.
2. Miel, Alice. *Creativity in Teaching.* Belmont: Wadsworth Publishing Company, Inc., 1961.
3. Osborn, Alex F. *Applied Imagination.* New York: Charles Scribner's Sons, 1963.
4. Torrance, E. Paul. *Budding Creative Talent.* Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962.

476.

152. Vol. 10, 1965



# B. UPPER ELEMENTARY LEVEL

## 1. Extending the Sight Vocabulary

J. RICHARD CHAMBERS
Boston University

SIGHT vocabulary belongs under the broad category of word recognition regardless of the grade level span one considers. Disregarding grade level further, word recognition (and therefore, sight vocabulary) also implies word meaning since the necessity of understanding the meaning behind words read is without question. As everyone knows, there is no meaning on the printed page since only the symbols of meaning are there, stimulating the reader to make his own meanings. Therefore, word recognition becomes the ability of the reader to recognize the word as a form he readily knows (a "sight" word), to correctly pronounce the word, and to know the particular meaning of that word in its present context.

### Importance of a Sight Vocabulary

Lacking an adequate sight vocabulary, the child is without word recognition skills and necessarily then, without word meanings. When meaning is not present neither are comprehension and/or recall. The effect of the absence of an adequate sight vocabulary is also reflected in incorrect, inadequate phrasing or word-by-word reading resulting, then, in poor oral reading. Though one might approach the development of word recognition skills through word analysis, without immediate recognition of words, speed of reading is too slow and results in an interruption of flow of thoughts and, consequently, a reduction in memory of the content read.

Traxler's study[1] of the relationship between vocabulary and general achievement points out that a child's word meaning score on the Stanford Achievement Test is a reasonably good predictor of his total score on the complete test. It has also been suggested that, "Some psychologists think that we never have any ideas until we have words to express them. Words seem to be necessary tools with which to think."[2]

It appears that to read with comprehension, the ultimate goal of all reading instruction, one must be able to recognize words immediately and to transfer these symbols into their proper meaning as determined by the particular setting in which the words occur. Children should be given the responsibility of *demanding* meaning from material read even though historically it is known that children are often not good judges of words needing clarification. The scale becomes one of reading with comprehension on one extreme to verbalism on the other.

At the intermediate grade level, the problems associated with vocabulary are multiplied a hundred-fold as compared with those in the primary grades. The number of words met by the child in the middle grades is almost without limit, yet his power to learn words is obviously limited to a small fraction of this total. The sheer number of new words is further complicated by the specialized nature of the vocabulary associated with the content subjects of social studies and science and, indeed, with any of the many subjects taught within this three-grade span.

### Limitations of Sight Vocabulary

Stockpiling words in his sight vocabulary permits the child to develop his reading power and increases his reading horizons. Yet, as he reads more widely, he must inevitably meet new words which are not a part of his ready supply of words. Here his "go-power" is limited and the usefulness of his sight vocabulary diminishes. Unless he has been taught some independent method of analyzing words his only alternatives are to ask his teacher what the words say (assuming she is available), to guess at the words, or to forget about them and to try to go on without figuring out what the new words might be.

Simply relying on his ability to remember the configuration of a word limits his knowledge to words already presented. If

[1]Arthur Traxler, "The Relationship Between Vocabulary and General Achievement in the Elementary School," *Elementary School Journal*, XLV (February 1945), pp. 331-33.

[2]Mabel Vinson Cage. *Reading in High Gear*. New York: Harper and Brothers, 1938, p. 30.

477.

he has learned to examine the context surrounding the word he has increased his "octane" but still has restricted his potential power. These perception and association abilities must be implemented by the addition of analytical abilities. Structural and phonetic analyses become particularly valuable and necessary at the intermediate grade level when the range and infrequency of new words met in the many different types of reading materials increases.

## Techniques of Teaching

As one considers ways in which upper elementary level children may be helped to extend their sight vocabulary it becomes necessary to consider the element of quantity or the practical question of the number of words children may be expected to successfully learn per day. The number of words met by children at this level is apparently high. Yet *all* of these words will not be learned by all of the children. This suggests that establishment of the learning rate of students at this level is just as necessary as it is at the reading readiness and primary levels. Teaching in relation to the established learning rate is an acknowledged method of providing for individual differences since it recognizes the existence of varying progress rates and is a sound criterion to consider when attempting to set up reading groups.

Children in the upper elementary grades must be encouraged and, if necessary, re-taught to make use of context clues as an aid in word recognition. Evidence indicates that students at this level do not appear to use these clues as frequently as they should even though they have probably been given this instruction in the primary grades.

Evidence suggests that tachistoscopic drill not only produces gains in quick word perception ability but also results in increases in rapid word recognition with meaning, speed of oral reading, reduction in the number of errors in oral reading, and overall reading achievement.

When teaching vocabulary it is important to add the dimension of depth to the existing one of breadth. Depth in this context means two things: a level of learning going beyond simple recognition, and a knowledge of the multiple meanings which most words have.

Word analysis ability, a necessary extension of skill in word recognition for the development of independence in extending sight vocabulary, offers many opportunities for middle-grade teachers. Exercises combining structural analysis (especially prefixes, suffixes, root words) and word meaning are probably the most valuable kind of word analysis practice for developing the reading vocabulary of intermediate-grade children. The relationship of these sub-skills to reading vocabulary is higher than the relationship existing among any of the other commonly taught word analysis skills and vocabulary.

Since studies show a positive relationship between phonic ability and reading achievement it is necessary to suggest, too, that phonetic analysis be added to the elements that need emphasis when developing independent vocabulary power. The inductive approach to word analysis as reflected in the Word Analysis Practice Cards by Durrell and others[3] will help children develop a "phonic sense" without the necessity of relying on a multiple rules-exception program.

## Summary

Procedures in word recognition must continually emphasize meaning and extend over into the area of word analysis with attention to the use of context clues and structural and phonetic analysis. The vocabulary demands placed upon children at these grade levels, because of the spepecialized nature of the content in the various subject areas and because of the lack of a rigidly controlled vocabulary, make it imperative that they become self-sufficient in their vocabulary needs.

[3]Donald D. Durrell, Helen A. Murphy, Doris Spencer, and Jane Catterson. *Word Analysis Practice Cards.* New York: Harcourt, Brace and World, 1960.

153.



## 12. Co-sponsored Meeting of the National Conference on Research in English and the International Reading Association

### a. The Utility of Phonic Generalization in the Primary Grades

THEODORE CLYMER[1]

The origins of this study go back to classroom experiences in which bright children pointed out more exceptions to phonic generalization than I could list applications. These experiences furnished the impetus for a series of studies which will attempt to answer three questions:

1. What phonic generalizations are being taught in basic reading programs for the primary grades?
2. To what extent are these generalizations useful in having a "reasonble" degree of application to words commonly met in primary grade material?
3. Which of the generalizations which stand the test of question 2 can be learned and successfully applied to unknown words by primary children?

The study reported here is a preliminary investigation of questions 1 and 2.

#### What Phonic Generalizations Are Being Taught?

Four widely used sets of readers were selected to determine the phonic generalizations being taught in the primary grades. After a preliminary study of the manuals, workbooks, and readers, the manuals were selected as the source of the generalizations. The manuals presented the generalizations in three ways: 1) Statements to be taught to the pupils. 2) Statements to be derived by the pupils after inductive teaching. 3) Statements with no clear indication as to what was to be done. Generalizations presented by all three means were included in the analysis.

Five general types of generalizations emerged from the study of the teacher's manuals. These types dealt with 1) vowels, 2) consonants, 3) endings, 4) syllabication and 5) miscellaneous relationships. Arbitrary decisions were made in assigning some generalizations to one or another of the five types since certain statements might easily be classified under two or more headings.

If we eliminate from our consideration the miscellaneous type of generalization, a total of one hundred twenty-one different statements were located. There were fifty vowel generalizations, fifteen consonant generalizations, and twenty-eight generalizations in each of the ending and syllabication groups. In evaluating these figures, it should be kept in mind that any statement was considered a separate generalization when its phrasing excluded or included different sets of words than another statement. For example, the generalization, "When there are two vowels side by side, the long sound of the first is heard and the second one is usually silent" and "When *ea* come together in a word, the first letter is long and the second is silent" were counted as two separate generalizations, although the second statement is a special application of the first.

While not directly related to our discussion here, note should be made of the wide variation of grade level of introduction, emphasis, and phrasing of the generalizations. Of the fifty different vowel generalizations, only eleven were common to all four series. None of these eleven was presented initially at the same half-year grade level in all four series. Some series gave a much greater emphasis to the generalizations than did other series. One publisher introduced only thirty-three of one hundred twenty-one generalizations while another presented sixty-eight. These comments do not detract from the usefulness of basic materials, but simply point out some of their differences. These differences do call for careful adjustments in the classroom when pupils are moved from one set of materials to another. The teacher who changes from series "X" to series "Y" may need to make some important revisions in his word recognition program. These findings may indicate also the need for further experimentation on emphasis and the developmental aspects of our word recognition program.

#### Which Generalizations Are Useful?

Forty-four of the generalizations given in the manuals were selected for further study. The selection of these forty-four was somewhat arbitrary. The main criterion was to ask, "Is the generalization stated specifically enough so that it can be said to aid or hinder in the pronunciation of a particular word?" An example or two will make our criterion clear. The generalization, "Long *o* makes a sound like its name," is undoubtedly a valuable generalization but it was too general to meet our criterion. On the other hand, the statement, "When a vowel is in the middle of a one-syllable word, the vowel is short," was included because we could judge by reference to a word list how often one-syllable words with a vowel in the middle do in fact have a short vowel sound.

Our next problem was to develop a word list on which we could test the generalizations. The most reasonable approach seemed to make up a composite list of all the words introduced in the four basic series from which the generalizations were drawn.

Once this list of some twenty-two hundred words was prepared, the following steps were taken:

1. The phonetic respelling and the syllabic division of all words were recorded. Webster's *New Collegiate Dictionary* was used as the authority for this information.
2. Each phonic generalization was checked against the words in the composite list to determine, a) the words which were pronounced as the generalization claimed and b) the words which were exceptions to the generalization.
3. A "per cent of utility" was computed for each generalization by dividing the number of words pronounced as the generalization claimed by the total number of words to which the generalization could be expected to apply. For

[1]Thomas Barrett, Harriette Anderson, and Joan Hanson provided invaluable assistance in various phases of the study.

479.

example, if the generalization claimed "When the letters *oa* are together in a word, *o* always gives its long sound and the *a* is silent," all words containing *oa* were located in the list. The number of these words was the total number of words to which the generalization should apply. Then the phonetic spellings of these words were examined to see how many words containing *oa* actually did have the long *o* followed by the silent *a*. In this case thirty words were located which contained *oa*. Twenty-nine of these were pronounced as the generalization claimed; one was not. The per cent of utility became 29/30 or 97. These procedures were followed for all forty-four generalizations.

When the per cent of utility was computed for each generalization, we set two criteria as to what constituted a "reasonable" degree of application. We have no scientific evidence to demonstrate that these criteria are valid; it can only be said that they seem reasonable to us.

The first criterion was a per cent of utility of at least 75. To state the matter another way, if the pupil applied the generalization to four words, it should aid him in getting the correct pronunciation in three of the four words.

The second criterion was that the composite word list must contain a minimum of twenty words to which the generalization might apply. Generalizations with lower frequencies of application do not seem to merit instructional time.

The results of our analysis of the forty-four phonic generalizations leave me somewhat confused as to the value of generalizations. Some time-honored customs in the teaching of reading may be in need of revision.[2]

Certain generalizations apply to large numbers of words and are rather constant in providing the correct pronunciation of words. (For example, "When two consonants are side by side, only one is heard.") Other generalizations seem to work, but they pertain to so few words that it would seem easier to teach the words than the generalizations. (For example, "When *a* is followed by *r* and final *e*, we expect to hear the sound heard in *care*.")

A group of generalizations seem to be useful only after the pupil can pronounce the word. Generalizations which specify vowel pronunciation in stressed syllables require that the pupil know the pronunciation of the word before he can apply the generalization. This criticism assumes, of course, that the purpose of a generalization is to help the child unlock the pronunciation of *unknown* words.

If we adhere to the criteria set up at the beginning of the study, only seventeen of the forty-four generalizations are useful. Some of the generalizations which failed to meet our criteria might be useful if stated in different terms or were restricted to certain types of words. We are studying these problems at the present time. We are also examining other generalizations which we did not test in this study.

**Conclusion**

In evaluating this initial venture in testing the utility of phonic generalizations, I hope we can avoid a detailed discussion of any particular generalization. Instead, the following questions may serve as a means of evaluating the entire study:

1. Was the source and method of selection of the generalizations adequate?
2. Was the word list appropriate to the problem?
3. Was the method of determining the per cent of utility a fair procedure?
4. Was the criterion of 75 per cent utility too stringent?
5. Should we teach generalizations even when they have low percentages of utility because they encourage children to examine words for sound and letter relationships?
6. By what means can we investigate the ability of primary children to learn and to apply phonic generalizations in pronouncing unknown words?

The most disturbing fact to come from the study may be that the generalization concerning pronunciation of adjacent vowels fails to work even half of the time. As one teacher remarked when I presented this study to a reading methods class, "Mr. Clymer, for years I've been teaching 'when two vowels go walking, the first one does the talking'; you're ruining the romance in the teaching of reading!"

[2] A table giving data for the forty-four phonic generalizations is available from the author.

159.

480.

154.

Vol. 9, 64

292.

## B. AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

?

### 1. The Substrata Theory: Human Physiology as a Factor in Reading[1]

FRANK R. DAVIS, JR.

THIS PAPER describes in part the results of a research study which extends the generality of the Substrata Factor Theory of Reading.[2] The paper has two logical phases. The first presents the conceptualizing utility of applying the subsystem transaction concept to certain physiological functions. The second describes the demonstration of a significant relationship between measures of these physiological functions and a measure of what is generally viewed as a psychological process, viz., speed of reading.

#### Substrata Factor Theory

Substrata Factor Theory holds that performance in the reading situation is explicable as a linear combination of interrelated neuro-psychological subsystems. The existence of these subsystems has been defined by high scores on certain measures of verbal performance, perception, or conceptual ability. In response to the stimulus of a reading situation a transactional organization of these subsystems is achieved. The resultant organization of subsystems is consistent with previous responses to similar stimuli, with modifications of subsystems due to intervening input, and with motivational perturbations. While subsystems are reorganized in ways to serve various ends devised by the individual, the peculiar organization of subsystems mobilized to serve a given objective is called a "working system."

Now, unlike certain other models the Substrata Factor Theory is not restricted to additive effects of identical elements. From the first, the implicit insistence on subsystem interaction meets the demand of contemporary neurophysiology theory by incorporating the concepts of open energy systems,[3] both facilitative and active inhibitory interaction,[4] and intentional behavior mediated by centrally regulated receptor events.[5] Thus, considered separately, subsystems are reciprocally related as agent and substrate; considered collectively, they constitute the substrate factors upon which input impinges. Hence we describe this

[1]This paper is based upon a segment of a research project supported by the Carnegie Corporation of New York, Jack A. Holmes, University of California, Berkeley, Principal Investigator.

[2]Frank R. Davis, Jr. *Speed of Reading and Rate of Recovery in Certain Physiological Subsystems.* Unpublished doctoral dissertation, Univer. of California, Berkeley, 1963.

[3]David Krech, "Dynamic Systems as open Neurological Systems," *Psychol. Rev.,* 1950, 57, pp. 345-361.

[4]Donald O. Hebb. "Intelligence, Brain Function and the Theory of Mind," *Brain,* 1959, 82, pp. 260-275.

[5]Karl H. Pribram. "On the Neurology of Thinking," *Behavioral Science,* 1959, 4, pp. 265-287.

481.

schema as the Substrata Factor Theory.

The subsystems of a "working system" have previously conceived in the Hebbian model as brain cell-assemblies. To orient to "neurological memory subsystems" is wholly adequate to describe the cognitive behavior of a brain. *The brain, however, is sustained by a body;* and this is the concern of the present study. It is recognized at the outset that the body, in which there are discernible physiological subsystems, is only *indirectly* related to that grey mantle assigned the major role in cognitive behavior. Nevertheless, one cannot gainsay the importance of any physiological subsystem which provides data on the physiological condition of the tissue in which neural activity occurs. To orient to *functional subsystems* revealed through mutual covariant activity provides freedom to implicate neural, humoral, and structural measures. One who bases his policy of action on subsystem interaction theory may investigate *all* behavior, cognitive and non-cognitive, gross and minute, as transacting parts of a total organism, the supra-system. In fact, the development of the thesis in this paper is contingent upon a clear recognition of Substrata Factor Theory which allows for the body's physiological subsystems to interact with the neuro-psychoeducational subsystems of the brain. The greater generality of such a subsystem interaction interpretation is realistic.

## Hypotheses

Two hypotheses followed from the purpose of extending the generality of the Substrata Factor Theory of Reading.

1. The *major hypothesis* proposed that a significant proportion of interindividual variance in reading rate would be contributed by variance of subsystems within the physiological domain.
2. Because open systems maintain a steady state, examining several equilibrating processes for evidence of a unifying factor was relevant to the major hypothesis. The *minor hypothesis* held that a subdomain, definable as "general efficiency of physiological recovery," would contribute the largest share of the predictable variance of reading rate.

## Data

Speed of reading comprehension (words per minute) measured before the eye movement camera appeared as the dependent variable. The 23 independent variables assessed various dimensions within the domains of physiological functions at basal level, cardio-vascular and respiratory adjustments after strenuous exercise, and psychophysiological response (PGR) to and recovery from startle stimulation.

A representative sample of seventy subjects was drawn from the California Adolescent Growth Study pool, Institute of Human Development, University of California, Berkeley.

## Identification of Subsystems

Functional subsystems were defined analytically as the clusters of variables resulting from a cluster analysis of the 23 variables.[6] Twelve variables were deleted as possible definers because they failed to meet the criteria of (1) communality equal to or greater than .40 and (2) correlation of at least .60 with a cluster centroid. The remaining 11 variables defined the five interpretable subsystems listed below. (Defining variables are given in parentheses.)

I. *Oxygen Transport Efficiency* (increment in oxygen intake and rate of recovery of oxygen consumption after exercise).
II. *Psychophysiological Arousal Level* (prestimulus palmar conductance level and PGR magnitude).
III. *Structural Growth* (weight, height, and skeletal age).
IV. *Psychophysiological Reactivity* (frequency of psychogalvanic response and PGR latent time).
V. *Physiological Maturation* (basal oxygen intake rate and age at 90 per cent mature height).

For each subject, subsystem-domain scores were calculated from the defining variables.

An unexpected finding was that chronological age failed to satisfy the criterion for inclusion in either of the subdomains, *Structural Growth* or *Physiological Maturation*. However, because of common usage in educational research, it was re-

[6]Robert C. Tryon. "Cumulative communality cluster analysis," *Educ. psychol. Measmt.*, 1958, 18, pp. 3-35.

tained as a unique-variable "cluster" for the next analytical procedure.

### Organization of Working System Hierarchy

A substrata factor analysis was executed on seven dimensions. Reading rate was used as the criterion variable. The six independent variables were the five physiological subsystems and chronological age.

Figure 1 presents the schema of physiological subsystems in the working system of reading rate. The major criterion, *reading rate,* is placed in the circle on the left. Arrayed in boxes from left to right are the four dimensions selected by the analysis. The numbers above the arrows present the strength of the interaction in terms of the adjusted per cent of variance contributed by the subsystem when in this particular hierarchical arrangement. Numbers below the arrows are regression coefficients.

Reading Figure 1 one finds 16.48 per cent of the variance in reading rate results from the combined contributions from the subsystem of *Oxygen Transport Efficiency* (12.36 per cent) and the dimension of *Chronological Age* (4.12 per cent). At the next order, 5.11 per cent of the variance in *Oxygen Transport Efficiency* is determined from the variance in *Physiological Maturation.* At the third level, are two factors remote from reading rate but analytically selected into the hierarchy. The domains which interact to determine 30.90 per cent of the variance in *Physiological Maturation* were the subsystem *Structural Growth,* contributing 29.31 per cent and the dimension of *Chronological Age,* with a small but significant contribution of 1.59 per cent.

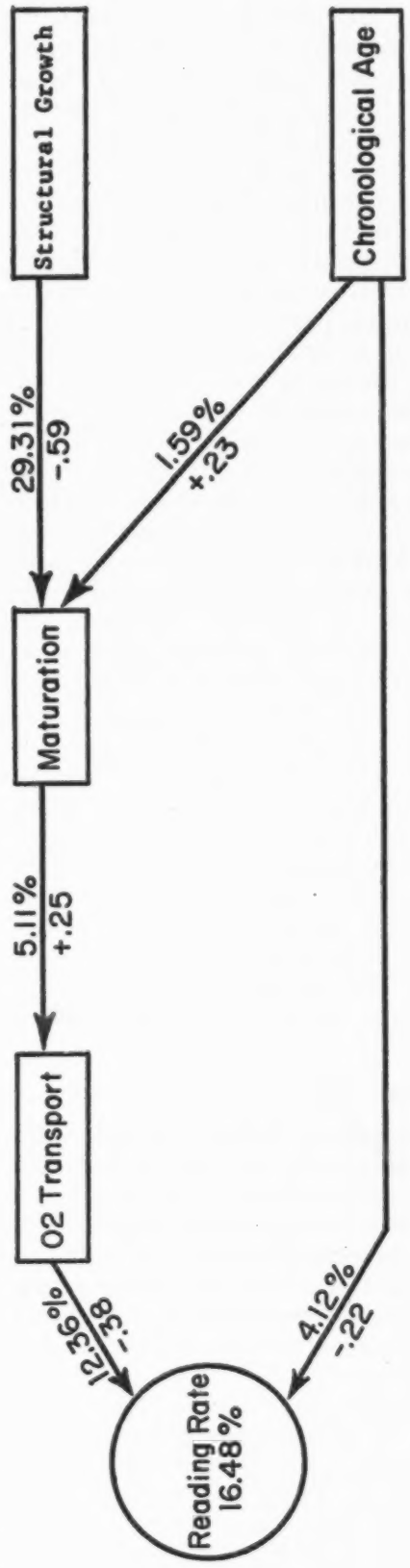



Figure 1 Schema of Physiological Subsystem-Domains in the Working System of Reading Rate

### Interpretation of the Working System Hierarchy

*Level I.* It must first be clear that a high domain score on the subsystem *Oxygen Transport Efficiency* indicates efficient adjustment of the body's oxygen transport mechanisms in meeting sudden increases in oxygen need. Secondly, the negative regression coefficient informs us that *high* ratings (promptness) in this physiological process tend to be associated with *low* ratings (slowness) in reading rate.

How is such a relationship possible? Research in exercise physiology provides evidence that increased efficiency in oxygen transport is a sign of a specialized organismic adaptation induced by a high

level of muscular activity, e.g., athletic training. Athletic training, however, was not in the experience of this sample of children. It is reasonable, then, to assume that the major source of variation in this subsystem is the idiosyncratic motor activity patterns of children. The individual degree of activity intensity is manifested in infancy, and by late childhood it becomes a well-recognized personal trait and a key anchorage point in the self-concept system. The effect on reading rate accumulates as year after year a child's self-selected behavior and his motor activity "need" reciprocally facilitate each other. By the time the junior high school years are reached, extensive involvement in motor activities reduces the probability of self-selecting activities which provide practice in an advanced reading skill such as speed of perception. Research is being developed to evaluate this speculation.

The ubiquitous finding of an inverse relationship between reading rate and age is more likely related to the tendency to non-promote poor readers in the lower grades than to any hidden physiological causes. *Level II.* Low domain scores in the subsystem *Physiological Maturation* are "good scores" in that they represent early maturing youth. Consequently, the positive regression coefficient means that early maturity predicts low *Oxygen Transport Efficiency,* and later maturity predicts better efficiency of oxygen transport at the present age.

It may be speculated that the activity patterns of the late maturers are more vigorous than those of their peers who perceive their emergent maturity and subsequently modify their activity intensity to meet the adolescent and adult cultural expectancy of specialization in motor behavior. For most this means reduced activity subsequently revealed by the lower score on *Oxygen Transport Efficiency. Level III.* It is not surprising that the subsystem of *Structural Growth* should be a major predictor of the variance in the subsystem, *Physiological Maturation.* What does arouse interest is their analytical separation. They are not the same! If one wishes to evaluate maturation, physiological development is more relevant than structural status.

The regression of *Structural Growth* on *Physiological Maturation* is negative. This means that a child in this sample who is advanced (scoring high) in *Structural Growth* would be close upon maturity, thus scoring low on *Physiological Maturation.*

The addition of the dimension of *Chronological Age* suppresses a portion of irrelevant or error variance, thus improving the joint relationship by a small but significant amount.

The two subsystems not selected are scheduled for further study because of their experimentally demonstrated importance to reaction time.

## Conclusion

The *major hypothesis,* stating that subsystems of the physiological domain would account for a significant portion of the variance in reading rate, was supported; and thus the Substrata Factor Theory has been extended to new and more fundamental levels.

The *minor hypothesis* was not supported. On the contrary, rather than a general domain of physiological efficiency, marked specificity was found. It was demonstrated that efficiency in one subsystem may be unrelated to or even incompatible with efficiency in another subsystem.

## Epilogue

It might seem reasonable to ask: Should we, therefore, restrain children from athletic pursuits so as to increase their speed of reading? The reply must be negative. For although a functional relationship was discovered, no direct causal effect of oxygen transport efficiency on reading is implied.

The explanation offered emphasizes the importance of the particular mode a child chooses in his efforts toward active environmental mastery. The kinetic level of a child is evident at least by toddlerhood and tends to be sustained through youth. Drawing support from behavioral genetics, the proclivity toward either a high or low activity level is proposed to be inherited. The differences in oxygen transport efficiency demonstrated in this research are suggested to be evidence that the biological support system of the body has adjusted to serve the idiosyncratic activity patterns as they have persisted over the preceding dozen years.



484.

Therefore, acknowledging that oxygen transport efficiency is manipulatable, one should not predict such manipulation to have a causal influence on reading speed.

155.

Vol. 9, 64

# PART V CO-SPONSORED MEETINGS

## A. CHILDREN AND ORAL LANGUAGE

### (A Joint Project of ACEI, ASCD, IRA and NCTE)

### 1. An Overview of Oral Language Recommendations

MILDRED A. DAWSON

THE PUBLICATION, *Children and Oral Language,* was jointly prepared by the appointed representatives of four organizations: ACEI, ASCD, IRA, and NCTE. When the four executive secretaries and several other members met to discuss matters of mutual interest, it was decided that something should be done to promote improvement in children's oral language. A committee consisting of two members of each of the four organizations and headed by Helen Mackintosh met in January, 1963 and made plans for the contents, format, and individual member's responsibilities for a publication devoted to oral language.

The original plan to prepare an article to be published simultaneously in the four organizations' journals was abandoned when it became apparent that no single article would suffice to express all that needed to be said. The committee did prepare an abstract, or brief statement of a common point of view, which appeared in the November issues of the four journals. Meanwhile, work on the full manuscript continued, and eventually it was ready to submit to committees of the organizations for evaluation and suggestions for revision. Dr. Mackintosh and another member of the joint committee then made final revisions.

#### Critical Importance of Oral Language

It is probable that oral communication is more important today than ever before. Opportunities and demands for effective speaking and listening are ever with us. In homes, radio and television keep us up to the minute in respect to the affairs of the local community, the state, the nation, even countries far outside our borders. In addition, we constantly meet face-to-face to speak and listen in club meetings, forums, and rallies. Daily there are negotiations among legislators, arbitrators, heads of government, and world-wide representatives in organizations like the United Nations, NATO, SEATO, and the Common Market. You and I, and people everywhere will prosper or languish helplessly as the result of negotiations where effective listening and speaking (or ineffective) are the means of deciding crucial issues.

The immediate importance of oral language is further highlighted as we consider the proportion of time we spend in using it. Some decades ago, Rankin found that 70 per cent of our time is spent in oral communication, with 45 per cent spent in listening alone. More recent investigations have yielded similar findings. Wilt, in studying the extent of listening in classrooms found that pupils spend 57½ per cent of their time in listening; and where there is listening, we may expect speaking.

The crucial importance of oral language is demonstrable on an entirely different basis: it lays a foundation for children's reading and writing. Burrows and others have made it abundantly clear that children should discuss thoroughly the topics about which they are to write so as to fill in any gaps in information, to correct erroneous ideas, and to organize thinking —especially in areas where firsthand experience is lacking and children have to depend on such secondhand sources as books, pictures, films, interviews, and other types of learning materials. Recently the research of Strickland and Loban have shown how closely the basic sentence pat-



485.

terns, speech rhythm, and vocabulary of children's oral language are related to proficiency in reading and writing.

For instance, Strickland found that children ranking high in silent reading comprehension use the common patterns of structure more frequently than do pupils with poor comprehension. Those comprehending well also speak in longer sentences and use elements of subordination more frequently. Pupils excellent in oral reading interpretation also use structural patterns more frequently and utter fewer short utterances than do their less able classmates.

### The Language Patterns That Children Bring to School

The level of a child's language usage reflects the type and quality of oral language used in his home. Typically he enters school with sufficient mastery of sentence patterns, vocabulary, and usage to enable him to get his ideas across whether his use of English is standard or not. However, the pupil who has heard standard English spoken and has consequently learned to speak so-called "good English" has an advantage over one who uses nonstandard language since he is using sentences and words that conform to those he will find in books and that he can carry over into his writing. Thus learning to read and write may be facilitated.

A teacher working with pupils whose oral language is nonstandard faces a real issue—to what extent such children should be encouraged to substitute standard forms for their customary nonstandard expressions. The position taken by the writers of *Children and Oral Language* is this: Of prime importance are the ideas which children express, and they should be encouraged to speak fluently and confidently, even though their oral language be somewhat nonstandard; correctness in speech should be held subordinate to the thinking and the oral expression of ideas. The teacher should accept whatever form of English each child customarily uses, especially at the primary level, and should avoid any treatment of nonstandard speech that will inhibit a child's desire to express his ideas. To quote from the manuscript: "Recent studies of disadvantaged children suggest that the hope of habituating every child to the oral use of standard English, *in the elementary school years,* is not feasible and may do more harm than good for the child's language growth." All would agree, I think, that a child should never be embarrassed by being made self-conscious about faulty speech, that he should constantly be encouraged to participate in oral language situations. Anyway, a child is likely to retain the level of language usage that has proven satisfactory at home and in the neighborhood. Even so, we may wonder how his continued use of nonstandard English may affect his efforts to learn to read and write standard English.

Actually, matters may not be as difficult as they seem. A potent influence is the child's tendency to imitate his teacher—voice quality, rhythm of speech, vocabulary, sentence structure, correct usage. Not only speaking but frequent oral reading by the teacher tends to affect the child's use of oral language. The pupil's ear grows accustomed to standard forms. Another helpful influence can come from role-playing. Recently in Portland, Oregon on a panel similar to this one, a member made an interesting observation to the effect that a child who uses nonstandard English will speak in his teacher's standard style whenever taking on the teacher's role. It would seem, then, that a child accustomed to hearing the good English of his teacher may abandon temporarily his less correct ways of speaking as he takes on the role of the teacher or any other adult who speaks in standard fashion. It might then follow that any such child would have little difficulty in learning to read and write standard English if there is sufficient role-playing to make standard forms familiar to ear and tongue.

A teacher's aim as he deals with the wide differences in children's speech should be to promote respect, even appreciation, for the various dialects used by the individual pupils. He himself should feel and register such respect; he should cultivate it in his pupils. There is no place for ridicule or adverse criticism. Who has not heard the speech of certain persons and thought to himself: "She's from the deep South," or "He must be from Massachusetts. I rather like to hear that *r* on

the end of *idea.*" Indeed, one of the committee's concerns as we worked together was the likelihood that all Americans may eventually speak alike, that interesting dialects that so enrich our mother tongue may disappear. Differences in intonation, rhythm, rate, and enunciation make our language rich and appealing. We are a mobile population; we are travelers; we listen regularly to the standard English spoken on radio and television. We cannot avoid noting that differences are already disappearing as we listen to congressmen who come from different parts of the country—they sound pretty much alike, and the Senator from Florida may sound much like one from Illinois or Oregon.

### Competencies Subject to Training

The competencies that underlie effective speaking and listening are subject to training. Nichols found that listeners, even when attentive, forget half of what they have just heard and, after two months, have retained no more than 25 per cent. By direct training in the art of careful listening, Nichols enabled his college students to improve retention by 25 to 40 per cent. Trivette, working with fifth grade children, found that 77 per cent of her pupils improved in their ability to listen for main ideas, important details, and likely inferences. Competencies in speaking well can likewise be improved by tactful, pointed instruction as an integral part of various lessons. Rarely are separate lessons to improve competencies called for.

### Parents' Role in Developing Children's Oral Language

Parents must realize that they largely determine the style of speech used by their children—the sound system, the vocabulary, and grammatical structures and characteristics. Parents should also make a practice of encouraging accurate listening as they read and tell stories, give directions and explanations, and discuss issues with their children. In the interest of helping boys and girls to participate effectively in learning activities that involve oral language, they should endeavor to build independence, self-confidence, and out-goingness in their children. At all times, teachers and parents should be in communication so that the latter are kept aware of the school's program in language instruction in order that they may be supportive of the school's program to improve oral language. They should, in particular, work at broadening their children's experiences and talking these over so as to clarify concepts, add to vocabulary, and build "mental bank accounts" useful for undergirding school learnings and for helping children to make informed contributions in class discussion.

### Responsibilities of the Teacher

Every teacher must recognize the importance of each individual pupil and truly respect his oral contributions. At the same time, he should develop in his pupils a corresponding respect for the speech patterns of classmates, genuine feelings of courtesy in dealing with one another. He must realize that willy-nilly he will serve as a model speaker and listener whom his pupils will imitate—often unconsciously. Having noted the dialects and various forms of oral language that his pupils customarily use, the teacher will consider ways and means of capitalizing on such differences and thus enriching the children's mother tongue.

Day by day the teacher will provide and take advantage of multiple opportunities for children to participate in conversation, discussion, storytelling, dramatization and role-playing, oral reports, and purposeful listening. It is through actually using language that children's competencies in speech and listening develop, not by discrete drill exercises unlikely to affect children's customary ways of using oral language. Back of the situations that involve children's use of oral language is much learning of content as the teacher provides many and varied experiences that broaden and deepen the pupils' backgrounds of information.

Any good teacher is likely to provide a rich curriculum and give his pupils opportunities to talk over what they have learned; but even the best of teachers may find it difficult to know just when any particular child shows a readiness for abandoning nonstandard expressions and for speaking in a more literate style. It takes real insight for a teacher to sense that a



child is ready to adopt standard English in his speech.

### Principles Underlying Measures to Improve Oral Language

In summary, we may identify certain principles for guiding programs for improving oral language. Here are some of them:

1. A child's speech is intimately related to personal development.
2. His oral language determines the quality of his reading and writing.
3. Teachers should put ideas before form.
4. Teachers should feel genuine respect for whatever dialect a child speaks.
5. Growth in a child's command over oral language leads to clarification of thinking, and vice versa.
6. The more inadequate a child's command of language, the more likely he will be blocked in some learning experiences.
7. Though a child's language patterns are pretty well set by the age of five or six, the competencies involved in using oral language are subject to training under skillful, tactful instruction.
8. Improvement is more likely to come through actual communication of ideas through speaking and listening rather than through separate practice and drill.

156.

Vol. 9, 64

## 5. Are Normative Oral Reading Error Profiles Necessary? 306.

GABRIEL M. DELLA-PIANA
WAYNE R. HERLIN



IN A previous year (*1*) one of the writers took a position favoring Monroe's norm-profile approach to analysis of oral reading errors as opposed to Durrell's gross-error check list approach, but at the same time called for some specific kinds of validational research. The present paper reports some preliminary data relevant to a choice between the use of oral reading error profiles based on some kind of norms as opposed to those based on a gross error count or check list. Specifically, we report here an exploratory study of the question: Do raw score error ranks give us a different oral reading error profile than reading grade norm error ranks?

### Subjects

In a related study (*2*) one of the writers utilized a sample of half of all the third and fourth grade classes in four schools resulting in an N of 243 pupils. From that sample we selected those retarded readers whose reading achievement was one year or more below their expected reading level. This gave us an N of 43 pupils for the present study. The median IQ of the group was 109. Median average reading achievement was 3.7 for third graders and 4.9 for fourth graders. Only three of the forty-three pupils were a year behind their grade placement in reading achievement although all 43 were a year or more behind their grade expectancy. For purposes of the above selection expected reading level was determined by the grade expectancy norms on the California Test of Mental Maturity, Short Form, 1963, Experimental Edition. Reading achievement level was based on two averages: (a) California Reading Test and the Monroe battery of Gray's Oral Reading Paragraphs, Iota Word Test, and Monroe Word Discrimination, and (b) California Reading Test and the Durrell Oral Reading Paragraphs, Word Recognition, and Word Analysis Tests.

### Definition of Terms

1. Oral Reading Error Types. Vowels (V), Consonants (C), Reversals (R), Addition of Sounds (As), Omission of Sounds (Os), Substitutions (S), Repetitions (Rp), Addition of Words (Aw), Omission of Words (Ow), and Words Refused (Rf) are defined following Monroe's classification. Scoring had substantial objectivity. On a group of 30 randomly selected cases we obtained high interscorer agreement with product-moment correlations of .80 to 1.00 for each of the error types (median of .96) on both the Durrell and Monroe tests.

2. Raw Error Score. Two such scores were obtained for each error type on each student. One was errors per 500 words read in the Monroe battery (MON/500) and the other was errors per 500 words read in the Durrell battery (DUR/500).

3. Normative Error Score. Two normative error scores were obtained for each error type on each pupil. These are standard scores, z-scores. One was based on the Monroe test (MON-z) and the other was based on the Durrell battery (DUR-z). Essentially, this score gave a pupil's position (z-score) on each error type compared with the average number of errors of that type made by pupils with his average reading level in the total sample of 243 students from which our sample was drawn.

### Reliability for Error Scores

As indicated above, scoring was very reliable (objective) as indicated by excellent agreement between independent trained scorers. An immediate retest reliability was not obtained because the procedure for test administration required prompting students on difficult words. A more stringent test of reliability is the correlation between a pupil's raw score error ranks on the Durrell (DUR/500) and his error ranks on the Monroe (MON/500). These correlations are represented by the column "1 vs. 3" in Table 1 and give evidence of considerable agreement between raw score error ranks with different samples of reading material.

### Results

The results are all based on four scores for each student on each of the ten oral reading error types. The scores (defined above) are: MON/500, MON/z, DUR/500, and DUR/z. For each score, the ten error types were ranked according to frequency. Then the ranks were correlated using Rho, the Spearman rank order correlation. To get a picture of what is being correlated, study Figure 1 and Figure 2

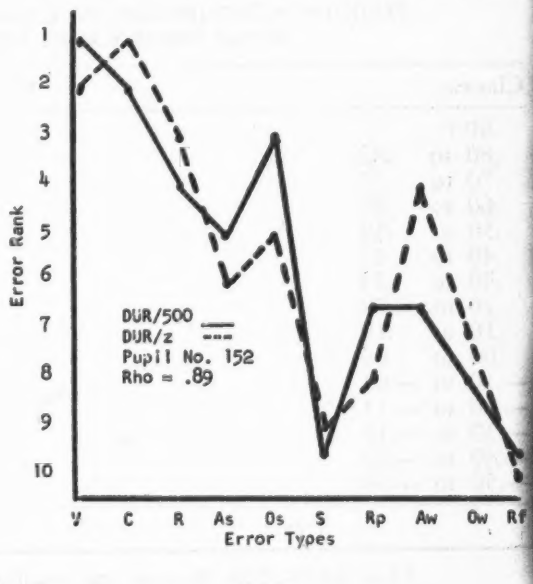



FIGURE 1

A PUPIL WITH A HIGH CORRELATION BETWEEN RAW ERROR AND NORMATIVE ERROR RANKS

488.

which give examples of a high and low correlation respectively.

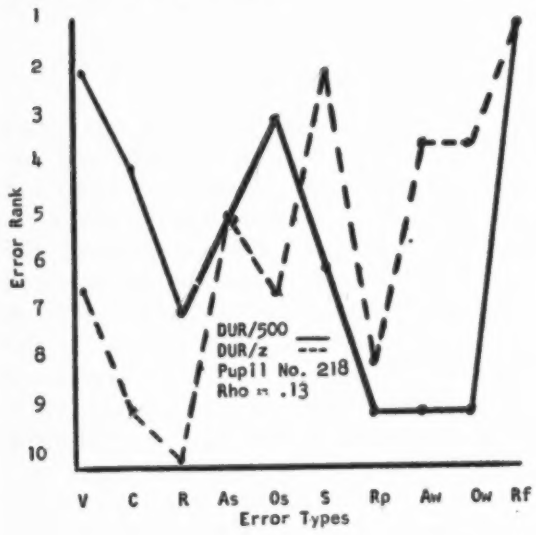



FIGURE 2

A PUPIL WITH A LOW CORRELATION BETWEEN RAW ERROR AND NORMATIVE ERROR RANKS

A summary of the frequency of correlations of different magnitudes is represented in Table 1. These correlations show that for most of our 43 pupils there is a substantial degree of agreement between the ranking of their oral reading errors based on raw scores (MON/500 or DUR/500) and their ranking based on normative comparisons with children of the same average reading level (MON/z or DUR/z). *In other words for most of these pupils the norms give no different information on reading error rank than do raw error scores.*

However, we pulled out for special study the eleven students with lowest correlations beteen raw score and normative error ranks (Rho's ranging from —.2 to +.3) and discovered that the low Rho's occurred primarily because of large rank order discrepancies among the following kinds of errors: vowels, substitutions, addition of words and omission of words. Case No. 218 represented in Figure 2 is illustrative of this pattern.

## Conclusions

1. Although for most cases error ranks are much the same whether based on raw scores or norms, some pupils show wide rank order differences among vowels, substitutions, additions of words, and omissions of words. The fact that these large differences occur for some pupils leads us to defend the use of norms.

2. The question of whether treatment procedures derived in part from the normative profile lead to greater gains in reading achievement than treatment based on a check list of errors or a raw score profile is, of course, one that can be answered only by appropriate further experiments. Such experiments are a rarity.

3. Finally, the bold experimentation on new approaches to the teaching of reading, some of which radically change the sequence and content of instructional materials may require the development of special curricular norms for diagnostic reading tests or even lessen the use of diagnostic reading tests and lead to more tests which are part of a specific course of study. This seems a possibility in spite of the fairly high agreement on error profiles in two different tests used in our study.

TABLE 1

FREQUENCY DITRIBUTION OF RANK ORDER CORRELATIONS BETWEEN RAW SCORE ERROR RANKS AND NORMATIVE ERROR RANKS

| Classes | *1 vs. 2 | 3 vs. 4 | 1 vs. 3 | 2 vs. 4 | Totals |
|---|---|---|---|---|---|
| .90+ | 4 | 1 | 3 | | 8 |
| .80 to .89 | 11 | 8 | 11 | | 30 |
| .70 to .79 | 3 | 1 | 9 | 2 | 15 |
| .60 to .69 | 1 | 9 | 9 | 6 | 25 |
| .50 to .59 | 7 | 4 | 4 | 4 | 19 |
| .40 to .49 | 2 | 9 | 1 | 5 | 17 |
| .30 to .39 | 7 | 1 | 3 | 4 | 15 |
| .20 to .29 | 3 | 1 | 3 | 2 | 9 |
| .10 to .19 | 1 | 6 | | 6 | 13 |
| .00 to .09 | 1 | 1 | | 6 | 8 |
| —.10 to —.01 | 1 | 1 | | 3 | 5 |
| —.20 to —.11 | 2 | 1 | | 2 | 5 |
| —.30 to —.19 | | | | 1 | 1 |
| —.40 to —.29 | | | | 1 | 1 |
| —.50 to —.39 | | | | 1 | 1 |
| Totals | 43 | 43 | 43 | 43 | 172 |

*1 = MON/500 Monroe oral reading raw error score per 500 words read.
2 = MON/z Monroe oral reading grade norm error score.
3 = DUR/500 Durrell oral reading raw error score per 500 words read.
4 = DUR/z Durrell oral reading grade norm error score.

## REFERENCES

1 Della-Piana, Gabriel. "Analysis of Oral Reading Errors: Standardization, Norms, and Validity," *The Reading Teacher,* January, 1962, pp. 254-257.

2. Herlin, Wayne R. *A Comparison of Oral Reading Errors on the Monroe Diagnostic Reading Examination and the Durrell Analysis of Reading Difficulty.* Unpublished doctoral dissertation. Department of Educational Psychology, University of Utah, August, 1963.

157.

## 2. Building Initial Critical Reading Abilities

WILLIAM K. DURR
Michigan State University



CRITICAL READING IS A relatively recent term which has evolved from an increasing awareness of the importance of the reader's reacting to, or thinking about, ideas expressed in print. While there is no universally accepted definition, in this article the term will be used to mean judging printed statements as distinct from evaluating literary merit.

### Levels of Reading

Let's exemplify critical reading on a ladder of reading skills by examining some skills which precede it. At the very simplest level, we are concerned that the child makes a direct decoding of the author's statements. This is what most teachers mean by "comprehension." For example, the child reads a sentence like this, "When the big dog barked, the little kitten started to shake and rolled up into a small ball on the ground." After the child reads this, we may ask, "When did the little kitten start to shake?" "What did she do next?"

This, of course, is an essential but low level of comprehension. It is a level which asks the child to tell us precisely what the author said; however, the reader must be able to do this before he can go on to more advanced levels.

Using the same sentence, now, let's go to the next level. This is the level of determining what the author is implying —what he is trying to say to us "between the lines" without actually stating it. In this sentence he expects us to make several implications. He is strongly implying, without actually stating it, that the kitten is frightened. He implies that a barking dog will cause a kitten to be frightened. He implies that the kitten is rolling into a small ball to protect herself. None of these are actually stated, but, as mature readers, you probably made all of these inferences just as the author intended.

The young child, however, needs to be taught to make inferences, and so we ask him, "Why do you think the kitten started to shake?" and "Why do you think the kitten rolled into a small ball?" This is a level beyond the mere precise decoding of the author's sentence and another necessary step toward critical reading.

Let's go to the next level now, the level of critically analyzing what the author says or implies, and use the same sentence for our example. Here we call for judgments about the author's thoughts rather than merely determinations of what those thoughts are. For example, we might ask the child, "Do you think that a kitten would shake when she heard a dog bark?" "If a kitten was scared by a dog's bark, do you think she would act the way this kitten did?"

Here we use the child's ability to comprehend, but we are going beyond that and asking him to make judgments about the feasibility of what the author states and implies. We are asking for critical analysis rather than mere acceptance.

Many opportunities arise for promoting critical evaluation in the classroom. If we understand critical reading and we believe in its importance, we will seize these opportunities as they arise. Beyond this, however, we can take direct steps to nurture and teach this ability.

### Promoting Critical Analysis

We can, arbitrarily and for convenience only, examine procedures for promoting critical reading ability under two headings. One of these involves general classroom procedures and the other concentrates on specific, planned techniques.

*General Classroom Procedures.* Under the heading of general classroom procedures, it is impossible to overestimate the importance of using a variety of sources for information rather than relying entirely on one which serves as the sole authority for whatever its topic may be. My friends in social studies and science tell me that most of the classrooms they visit still use a single book as the sole source of content in each of those areas. When the children study natural resources, for example, their views on water usages are derived from *the* book. They seldom hear the views of an ardent fisherman compared with those of someone who works for the state conservation department. They seldom compare the facts that can be presented—even at a primary level—about the effects of dumping sewage into a stream with the sewage that they can actually see being funneled into almost any stream they visit. They read in *the* book that water floats logs and, under certain circumstances, that it can be used to generate electricity. Then they go on to the next chapter.

I am not suggesting that very young children can critically analyze in depth the problems that beset our society. I am suggesting that they must have a chance to compare, to analyze, if they are going to have a foundation for critically analyzing anything at more mature levels.

The important characteristic of the classroom is an atmosphere where children are encouraged to explore and reach decisions for themselves rather than an atmosphere in which children are viewed as dry sponges soaking up the flood of information given to them by the teacher.

So far, our exploration of critical analysis has tried to lead to two major conclusions. First, we have examined it with the hope that this analysis will lead you to recognize and seize incidental opportunities which will arise in your classroom. Second, we have suggested the importance of a classroom where children are required to explore information from various sources rather than rely solely on a single source.

*Exercises for Children.* Let's explore this now through some examples of specific exercises which you can use with children.

(1) *Statements of fact and opinion:* At an adult level, we are continually bombarded by written and verbal opinions which are accepted as facts by the receiver. The adult who reads one newspaper describing "our country's vacillat-

490.

ing approach" may not know that his other newspaper which discusses "our country's consistent efforts" are both dealing with exactly the same approach. The difference is in the mind of the writer as he tries to make his opinions our opinions.

While we do not expect mature depth in the first days of school, we can begin building a foundation culminating in a mature citizen who can analyze for statements of fact and statements of opinion. At its very simplest beginnings, we start in kindergarten and first grade helping children distinguish between fact and fancy—between stories describing incidents which could have happened and others which are "making believe."

For example, here is a brief excerpt from a first grade story. "Willie was a little kitten. He did not know where to go. He wanted a home with a fire and a bed to sleep in. But there he was out in the cold with no home, no bed, and no fire."

Now, here is another first grade story from the same basal series. "Mrs. Blue called, 'Here kittens, why are you behind the box?'

" 'We don't like this house,' said one of the kittens. " 'There is no fire to sleep near.' "

A discussion of the second story after the children have read it, should go beyond just asking, "What reasons did the kittens give for not liking their new house?" In addition, discuss with children, "Do you think this story could actually have happened?" and, of course, the all-important. "Why do you think that?" And, "Why do you think the story about Willie could have happened, while this one must be make-believe?"

First grade children have a listening ability which far surpasses their ability to read those thoughts in print. Because this oral ability is closely aligned to, and serves as the foundation for, later ability to read, we can use it to provide a base for critical reading skills at later grade levels.

Try this with your young children. Say to them, "You know some of the things we read and hear are given as opinions. That is, they are given as what the speaker or writer thinks about something. Some of the other things we read and hear are given as facts. That is, the speaker is telling you, 'This is not just what I think; this is the way it is.' Let me show you how these are different. Listen, 'We can buy spinach at the grocery store.' Is that given as a fact—as a statement of something that is true? But suppose I say to you, 'I think that everyone should eat spinach twice a day.' Is that given as a fact or as somebody's opinion —what somebody thinks about somethings?"

Your first examples of opinions should be so obviously opinion that everyone can agree that they are. These children have been taught for years that any words coming from adults are to be accepted without thought. While they haven't always done so, it may take them a little while to get the idea that we don't always expect them to blindly accept.

After you have once planted the seed of opinion versus fact, you and the children can devise other statements which are less obviously opinion. A discussion of these can provide invaluable groundwork for later efforts which will help these students make these essential distinctions as they read.

(2) *Recognizing assumptions:* Another essential ability for adult readers is the ability to recognize assumptions. Here is a brief, hypothetical, but rather representative passage. See if you can determine the assumptions that the author makes.

> *Since children in this country are at least three years behind those in most European countries in achievement, the need for educational reform becomes increasingly evident. As we search for the causes of the vast gap, we should look first at our teacher training institutions. The educationist's rejection of advice from his colleagues in academic areas is one reason. Professors of discipline areas who are concerned with what children learn should have a strong voice in teacher training.*

Now, let's examine some of the assumptions that the writer makes. First, the writer makes the unsupported state-

ment that there *is* a vast gap in education. Such a statement, which serves as the basis for his following arguments, requires objective support.

Second, he makes the statement that educationists reject advice from their colleagues in academic areas. Again, this is glibly made but unsupported by the writer.

Third, he implies that educationists are not concerned with what children learn. This is a little more artfully hidden, but here, too, is an example of writing which denies the critical reading ability of the audience.

So what *does* the statement contain? Several unsupported statements cemented together with the opinions of the author.

We cannot expect a primary grade child to critically analyze such a statement as we should. We can, however, build a background which will ultimately lead to that ability. For example, in the upper primary grades you may approach it in this way with your pupils.

"Sometimes when we listen or read, we come across a statement which is supposed to be true and, from that, the speaker tells what will happen next. If the statement does not turn out to be true, then what is supposed to happen next may not be true.

"For example, listen to this statement which a pupil made, 'When mother lets me go to the store today, I am going to get a chocolate ice cream cone.' This child was saying that he would get a cone, but it really depends on whether it is true that his mother will let him go to the store. If he is mistaken about his mother's letting him go to the store, then the rest of the sentence will not be true.

"Often when we hear statements like this, we don't stop to think about them; but, sometimes, if we do, we can find the part that must be true before the rest can be true.

"Let's try a few of these just for fun. Listen, 'When Daddy gets his new boat next week, I'll go for a ride in it.' What part of that must be true before the rest can be true?"

You can make up other sentences which require the children to critically analyze assumptions. For example, "After I get the toy gun for my birthday, I'll play spaceman with you." Or, "Since I will stay up late tonight, I'll be able to watch Batman."

Of course, there are a number of unstated assumptions in such sentences. For example, in the last sentence, in addition to the stated assumption that the speaker will stay up late, there are the unstated assumptions that he has access to the television set and the right to determine which channel it will be turned to. Before pressing for additional assumptions, however, be sure that your pupils have taken the first basic step of recognizing the stated assumptions.

In addition to making up examples, you can locate assumptions in various materials that the children read. For example, in the $2^1$ reader for one basal series, there is a story about Katy No-Pocket. You may recall that Katy, as her name implied, had no pocket to carry her baby, so she checked with other animals to learn how they did it. When she tried to carry her baby on her back like a crocodile, she made the assumption that he would be able to stay on when she jumped. Unfortunately for the slightly bruised baby, this proved to be a false assumption. Once children have developed the idea of what an assumption is, they can find many similar examples in the materials that they read.

While using the word "assumption" here, I have avoided using it in my suggested statements that you use with the children. Whether you do or do not use a word like "assumption" with your children must depend entirely on them. As a general guide, we should usually use such words when our pupils can be led to understand them. Words are the verbal tags for thoughts; and, if your pupils are mature enough to comprehend the general idea or thought behind noting assumptions, there is no reason that they should not have the verbal tag to apply to it.

158.



### b. Changing Concepts of Reading Instruction in the Development of Basic Skills

RICHARD FRENCH

I speak as a teacher of intermediate grade children. I feel, in all humility, that my role is an important one. My students look to me for guidance and inspiration as they seek to master that most basic tool of learning, reading. They are dependent upon my instruction for the strengthening and extension of those skills to which they have already been introduced; and they rely upon my tutelage for the acquisition of those new skills which will enable them to become the independent workers they are required to be by the nature of the work of the grades that follow.

I fully appreciate the challenge of teaching the middle-graders. My students may have differed only a few years in their ability to read when they were in the early primary grades; but by the time they are with me in the intermediate grades, they test in years all the way from eight to eighteen, with vast differences existing even among those who test at the same grade level.

Truly the vast differences in reading ability that are found in the intermediate grades are challenging; but rather than to deplore their existence, it is my task to provide appropriate learning experiences in light of the differences that exist, thus encouraging each child to grow to the limits of his capabilities.

Yes, my role as classroom teacher is an important one. When the door to my classroom closes, I am alone with my students; and they are dependent upon me. They are dependent upon my understanding of the reading process and my ability to guide them through reading experiences that will insure their becoming successful readers. I serve as the arranger of their environment, the planner and guide of their learning experiences, and the releaser of their inherent abilities. Because of their dependence upon me, it is my responsibility to make sure that my every instructional act is well-conceived and properly executed. If it were otherwise, I would not be deserving of my position.

As a teacher, I must heed the scientific evidence resulting from studies made in the field of reading. I must likewise investigate and implement the changing concepts of reading instruction which have come about due to the evidence presented by reading research. For as a teacher, I am the one who must effect the changes that research indicates should be made. It is the purpose of this paper to indicate how I, as an intermediate grade teacher, plan to implement the changing concepts of reading instruction in the development of basic skills at the intermediate level.

#### Understanding the Reading Process

To begin with, I find that I must become more articulate as to what the many facets of the reading process are. I can no longer think of reading solely in terms of the components—vocabulary, comprehension, and speed. Behind these labels there are hidden subtleties, some only recently brought into focus by reading studies. If I as the classroom teacher am not aware of the many skills required of the good reader in the perception of words, the comprehension of the ideas expressed, the reaction to these ideas, and the integration of new ideas with past experiences; then I assuredly will not be successful as a teacher in providing the experiences necessary for the development of these skills.

How can I attain a proper understanding of all the factors involved in the reading process? Well, for one thing, I can seek this knowledge on my own. I can read the writings of the leaders in the field of reading. I can become acquainted with the professional journals in the fields of reading and the language arts. I can become familiar with the recent research carried on in the reading field.

As a second avenue to attaining the understanding I need, I can seek help from professional sources. If I have had little training in reading methods, thus possessing a meager background with regard to the skills that are involved in the reading process, I can take the training that will help me become familiar with the skills I am expected to teach. If I am unable to effectively analyze research studies, I can take the training that will enable me to analyze research. It is evident in every

493.

instance, that the burden of responsibility for acquiring the necessary insight as to the skills involved in the reading process rests upon my shoulders.

### Diagnosing Pupil Needs

After becoming more articulate as to the skills of the reading process, what is my next step as a classroom teacher in implementing the changing concepts of reading instruction? It would seem to me that my next step would be to become more adept in diagnosing the needs of the pupils I instruct. Since learning is thought to begin where the learner is, I had better discover the techniques that will enable my knowing just where each of my pupils is with regard to the reading skills.

How can I diagnose the strengths and weaknesses of my pupils? There are many ways. Of course there is the information obtained from the cumulative records and comments of previous teachers. There is the information that can be obtained through individual conferences where each pupil reads from a variety of materials of graduated difficulty in order that his basic strengths and weaknesses may be determined. Then there is the testing program which can be carried out at the beginning of the year, a program leading to the identification of each pupil's needs. I refer to a testing program wherein the teacher seeks to understand the pupil's reaction to individual test items and test sections rather than to the type of testing program wherein the total test scores are recorded for each pupil and then filed away for posterity. May I add that in this type of testing program the teacher is interested in the test instrument itself; for the test must be analyzed and understood by the teacher if very much is to be gained by its administration.

In addition to the techniques of diagnosis already mentioned, there is the technique of appraising each pupil in terms of other factors that relate to reading. This appraisal can be carried on not only during the period of reading instruction, but throughout the entire school day. This appraisal could cover such factors as: visual and physical habits while reading; personality traits and health factors that might have a bearing on reading success; reading background; past success in reading; speed of reading and the ability to do many types of reading; attitude toward reading, both expressed and observed; reading interests and preferences relating both to style of reading material and content; ability in the related fields of speaking, writing, and listening; and oral reading ability. There is much to know about each pupil; and as a teacher of reading I must be skilled in the techniques of appraising each pupil's abilities.

### Organization of the Reading Program

Now then, if we have made ourselves aware of the skills that are required in the process of becoming successful readers, and if we have determined where each child in the class stands with regard to skills through diagnostic techniques, where do we go from here? Or, in other words, how do we organize our reading program so as to provide effective, sequential instruction in the teaching of the basic skills necessary for the development of good readers?

The only sure answer to this question would seem to be that there is no sure method of organizing for reading instruction so as to simply and magically insure every child's acquiring the basic reading skills. Rather, it would seem to be a matter of organizing the reading program so as to provide a balance of emphasis as far as the various aspects of reading are concerned; with constant evaluation of the organizational plan so as to determine its success in covering all phases of the reading process.

Care must be taken to avoid the overemphasis of any one phase of the reading process to the detriment of the other phases of reading. This was aptly pointed out by the late William S. Gray[1] in a letter to the editor of *Phi Delta Kappan*. In his letter, in which he discussed his review of evidence pertaining to the place of phonics in a reading instruction program, Dr. Gray stated:

> "When all the facts were considered, three conclusions emerged: 1) Experimentation thus far does not establish the superiority of any one method, due to the fact that experimentation has not involved all methods and made comparisons between them. 2) That the nature of the growth in

[1]William S. Gray, "Letter to the Editor," *Phi Delta Kappan*, XLII, November 1960, pp. 87-88.

the ability to read is determined by the emphasis in teaching. If it is on phonics, pupils grow rapidly in ability to recognize words which are largely phonetic in character. If the content is stressed, pupils grow in their capacity for grasping meaning and in their ability to understand what is read. 3) Progress is most effective when instruction at any given level emphasizes all of the aspects of reading that make for competent readers at that level.

"Practice during recent years has been guided largely by the third finding cited above. As far as I can determine, there is more emphasis today on word recognition than during the Forties. Descriptions of most of the improvement programs which have appeared in recent literature emphasize the importance of balanced emphases on all aspects of reading."

Now, in addition to our interest in a balance of emphasis, we must be concerned with the efficiency with which our instructional program is organized. How do we organize our instructional period, confronted with a classroom of middle-graders possessing a seemingly endless array of individual needs as far as basic skills are concerned?

It would seem again that there is no sure pattern. The teacher can, however, determine fairly easily which needs must be met by individual instruction, which can be met by small group instruction, and which can be met by working with the entire class as one group—organizing his instructional program accordingly. The teacher can also come to discover how children of different ability levels, who have a common need for instruction in a basic skill, can be taught in a group situation and then be led to practice the skill that they have received instruction in at their individual levels. Again, balance is desirable—each child receiving instruction in a variety of grouping situations.

Can I rightfully establish the organizational pattern before I know my students and their needs? No, for to have a set organization prepared before the students arrive in my classroom would be like the doctor having a prescription ready for me before he had diagnosed my ailment.

This points up the need for flexibility as far as instructional materials are concerned, too. The teacher must know the materials and what they will help him accomplish; and just as in the case of the doctor's prescription, must prescribe them after the diagnosis has been made, not before.

**Conclusion**

I have expressed the need for better understanding of the many facets of the reading process on the part of the teacher. The importance of increased skill in diagnosing pupil needs was emphasized. Finally, the need for basing the organization of the instructional program on pupil needs, while making sure that there is balance in emphasis, was stressed.

Common to the implementation of each of these concepts is the increasing responsibility of the classroom teacher in understanding his pupils and planning experiences that will enable each child to attain maximum growth. If we are to encourage each child to grow to the limits of his capabilities, then each of us as teachers must seek to implement the techniques through which children may be guided to greater heights. It is the "each" in "teaching" that is so important. Each of us as teachers must grow that each child may benefit.

159.

### b. *A Study of the Meaning of Phonics Skill in Its Relationship to Intelligence, Reading, and School Success*[1]

130 JESSE W. GRIMES

The controversial issues concerning the place of phonics instruction in the reading program remain unsolved. It is no longer a question of phonics versus no-phonics, since phonics instruction is a vital ingredient in almost all systems. The questions focus upon (1) the timing of the introduction of phonics, i.e., prior to, concurrent, or following the teaching of a basic sight vocabulary; (2) the degree of systematization of phonics instruction; (3) the extent to which phonics is drilled separately from actual reading; (4) the emphasis upon phonics as a basic tool in word attack; and (5) the encouragement of trial responses, or intelligent guessing on the basis of clues other than sound-to-letter associations.

[1]The research reported herein was part of a larger study conducted at the Harvard Laboratory for Research in Instruction under the direction of Dr. John Carroll.



These issues must be settled on the basis of thorough research, most of which has not been done. The tendency of educators has been to carry out rather superficial surveys without proper controls, and then to make sweeping generalizations with interpretations that attempt to answer all of the above questions.

Recently there has been an increasing number of reports in the literature demonstrating that phonics skill is positively related to reading proficiency, that formal phonics instruction is successful in producing primary grade reading skill, but that today's children in later grades under common teaching techniques are not capable in phonics skills. The usual inferences from these results are that phonics should be taught as a separate discipline at the beginning of the first grade. It is the writer's opinion that such inferences are not justified on the basis of the information given. An example of one such study is described below.

Beltramo conducted an experiment using an alphabetical phonics approach to the teaching of reading in grade one. Her experimental group included five classrooms, with a total of 120 children, while a control group of four classrooms and 86 children was taught by standard procedures that are currently accepted in the reading profession. At the end of the first grade, achievement tests were administered, and the results favored the experimental groups in reading skill *though the differences were not significant.* Evidently intelligence was not controlled, and this may represent a weakness in the interpretations given. In an effort to show that the experimental group did not receive an over-emphasis on phonics, the author points out that this group proved to be superior in arithmetic achievement also. Perhaps the arithmetic achievement is evidence that the experimental group had higher intelligence which, if controlled, might have erased the small superiority this group demonstrated in reading.

Few valuable inferences can be drawn from these results. We do not know how intelligence influenced the results. We do not know the extent to which all aspects of reading proficiency were measured. We do not know how much phonics was learned incidentally by the control group. We do not know the long range differences after several years of teaching by the two methods. We only know that it is possible to teach first grade by either method with fairly equal success on a particular paper-and-pencil test. There are practically no tightly-controlled researches that answer the real questions. The fact that so many children learn to read well under the whole-word-incidental-phonics method makes it mandatory that we investigate phonics thoroughly before making a blanket recommendation as to how reading should be taught.

No single research can make more than a small contribution to the whole problem. The study reported in this paper attempts to measure "phonics skill" as a distinct entity, and through correlation to determine its relationship to intelligence, reading proficiency, and the total school achievement. The results throw some new light upon the meaning of phonics but open up many new problems, for there are indications that children possess phonics aptitude to a greater or lesser extent, and that some children evidently generalize their own phonic principles whether or not they are taught systematically. We now wonder if this aptness for learning phonics skill is a character trait in itself that is at the same time effective in producing all-around school achievement.

#### Research Procedures

A battery of tests was administered to 156 third-grade children who represented a random sample from stratified levels of reading success within a city population of 1456 third-grade children. The sample represented a normal distribution on intelligence and achievement scores. There were 87 boys and 69 girls, drawn from 24 different classrooms. Only a very few children in the sample group had been together with the same teachers throughout the three grades. All teachers in all schools had generally followed the standard reading series and manuals, with individual variations among teachers as to the emphasis upon phonics. All teachers had initiated reading through the development of a sight vocabulary.

Intelligence was measured by the administration of the *California Test of*

496.

*Mental Maturity*, and individual administrations of the *Wechsler Intelligence Scale* for children.

Reading skill was measured by the *California Reading Test* and the *Gilmore Oral Reading Test* which is individually administered and measures comprehension, speed, reading errors, phrasing, and other components of reading.

Phonics Skill was measured by an instrument constructed by the writer with suggestions from Dr. John Carroll and Dr. Donald Durrell. In one section nonsense syllables were read aloud (by tape recorder for standardization of pronunciation), and children were required to underline the correct printed symbol. Other sections required children to choose a word that rhymes with a given word, and words that begin and end like a given word. Difficult words were pronounced and they were asked to find that word among several closely similar words. Finally, a list of fragmented difficult words was given, and the tester read the words as in a spelling test, and the children filled in the missing syllables or letters.

School achievement was measured with the *Stanford Achievement Test*, Form J, and the battery median used as the criterion score for statistical analysis.

First order correlations were computed between all measures, and then partial correlations were computed. Partial correlation is a relatively crude statistical procedure by which one can gain an indication of possible relationships between two measures when the influence of other factors has been eliminated or "partialled out."

**Results**

A table of first order correlations is presented below.

*Table 1.* First Order Correlations of Two Measures of Intelligence and Four Measures of School Success

| | WISC. | Calif. M.M. | Gilmore | Calif. Read. | Standard Ach. |
|---|---|---|---|---|---|
| Phonics Skill | .57 | .45 | .72 | .77 | .81 |
| WISC | | .66 | .37 | .45 | .55 |
| Calif. M.M. | | | .39 | .59 | .54 |
| Gilmore Reading | | | | .70 | .77 |
| Calif Reading | | | | | .76 |

The fact that is immediately apparent is the relatively low degree of correlation between intelligence test scores and the measures of school success. Also striking is the fact that phonics skill is correlated to only a small degree with intelligence but its relationship to total achievement is high. Phonics skill correlates with achievement +.81, which is higher than does any other measure of intelligence or reading proficiency.

Partial correlation shows an even more striking picture of the strength of phonics skill as a predictor of school success. The first order correlation of phonics skill to Gilmore Reading was +.72. However, if we eliminate the influence of intelligence by partialling out the Wechsler results, phonics skill still correlates +.70 with Gilmore. This is a highly significant finding and indicates that reading success is greatly determined by the extent to which the child has mastered phonics, and that this influence is not materially reduced when all the factors measured in an individual intelligence test are removed from consideration. In addition to focusing attention upon the importance of phonics in reading success, this opens a new question. Since the whole-word method was used in teaching reading to all of these children, and reading success depended largely upon the extent to which phonics was learned, and not upon intelligence, we wonder if there is a personality trait that indicates a kind of systematic or analytical thinking that is not measured in intelligence tests but does determine ability to generalize phonic principles. We also wonder if this same trait will carry over to influence total school achievement.

To determine this, correlations were computed between phonics skill and achievement test scores, partialling out the effects of each of the tests and then combinations of tests. As shown above, phonics skill correlated +.81 with achievement. If we remove the effects of the Wechsler, there remains a correlation of +.77; if we partial out *California Mental Maturity*, the correlation is still +.76, and when we eliminate both intelligence scores in one statistical operation, phonics skill is still related to achievement +.75. This finding establishes the importance of phonics skill in total achievement, but does not yet confirm the idea that aptness for learning phonics skill is a unique character trait. Perhaps the

achievement score simply reflects the higher reading skill of phonics achievers.

To test this, phonics skill was correlated with *Stanford Achievement* and both the *Gilmore* and *California Reading Tests* partialled out. The resulting correlation of +.55 indicates that even when the influence of reading proficiency is removed from consideration, those children who are high in phonics skill are also more successful in total school achievement. In other words, while phonics skill seems to predict reading success, there are other factors at work within the personality complex that seem to show that those who learn phonics have characteristics necessary for school success apart from reading skill.

Higher than second order partial correlations begin to be suspected as to validity, but the findings in this case are interesting. When all four tests of intelligence and reading are partialled out simultaneously, phonics skill still correlates +.49 with total achievement.

**Discussion of Results**

All of these results give strong support to the idea that certain children possess a personality trait that is not measured in intelligence tests, but exerts a powerful influence on school success. There is no indication here that *all* children should be taught formal, systematic phonics in the first grade. A very substantial number of children achieved satisfactory success in all academic areas including reading, without such formal training.

Teachers have long suspected that some children learn to read better if taught by phonics and that others proceed more successfully by other methods. This study does not begin to answer that question, but does accentuate the need for further research in this direction. The writer has recently been engaged in a research to determine if varying personality characteristics will dictate that certain children will learn best by formal phonics while other children will learn best by different techniques. If this is confirmed, this might account for the fact that so many experimental studies have shown no significant differences between the two methods of teaching. Perhaps certain children fail in one system who would succeed in the other, and vice versa, thus "washing out" the over-all system differences.

The writer feels that no implications can be gained from the study reported in this paper that can immediately be put to practical use in the teaching of reading. Phonics skill has been shown to be a strong factor related to reading and scholastic success, but with no indication as to how it should be taught. The more important implication is that an aptness for learning phonics skill may be a personality trait, or may be related to measurable personality characteristics, and that these factors, if defined and demonstrated, may indicate how phonics and reading may best be taught to particular kinds of children.

160.

Vol. 7, 62



# 11. Speed, Comprehension, and Power in Reading[1]

JACK A. HOLMES

## Introduction

Speeded reading is demanded by the tempo of the times, but the keen appreciation of crucial ideas, the understanding of those great concepts which have taken the human race thousands of years to evolve, need not, indeed cannot, be fully grasped as one's speed approaches its limit.

The secret of good reading lies in the ability to know when and how to change pace. The mundane material concerning the commerce of life may well be read quickly, but when one comes to the crux of the message, or when one fortuitously encounters one of those fountainhead concepts from which ideas flow, then one must deliberately drink the delightful draught until the full meaning has been drained. Even then, such passages are wellsprings that may be read again and again, each time affording the reader a little deeper insight, a greater understanding, a new zest for life!

Indeed, the deepest satisfactions come not when one is able to read a book in 30 minutes flat (the goal stressed by some teachers today), but rather when one chances upon a beautifully written passage carrying so much meaning, sparkle, and conviction that it verily sings—as it clarifies the meaning of life and causes one to bring his value system into closer harmony with the realities of the universe.

My first point then, is this: If one already *knows how* to read, his *rate of comprehension* of the printed page can be increased enormously by persistent practice on easy material over an extended period of time. This is all to the good. Nevertheless, as one pushes his speed above the four to eight *hundred* words-per-minute mark into the next higher order of magni-

[1]This paper draws heavily upon a research study done by the speaker and Dr. Harry Singer, "The Substrata-Factor Theory: Substrata Differences Underlying Reading Ability in Known Groups." This study was a Cooperative Research Project supported by the University of California, the United States Office of Education, and the Carnegie Corporation of New York. This monograph is now on the press and in October will be available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.



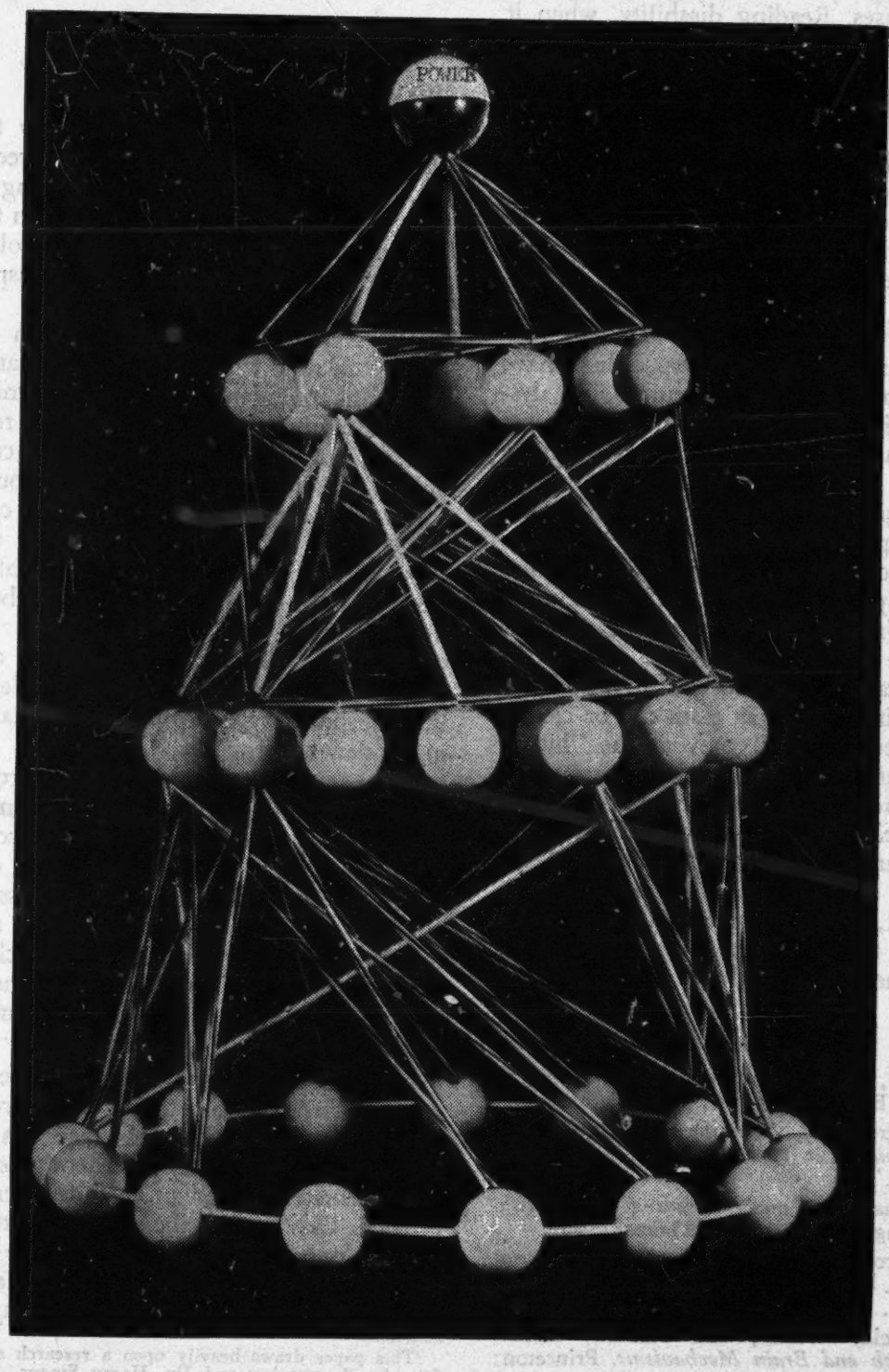



Fig. 1. Diagrammatic model of a working-system for power of reading. See text for explanation.

499.

tude, say two to eight *thousand* words per minute, the reader simply rides in on the crest of the wave. As his eyes race down the page, it is true that he may learn to catch the gist of the story; but the beauty of the syntax, the style, the sting, the twinkle, the music in the well-turned phrase, the technical explanation, or logic of a philosophical discussion cannot be truly pondered, grasped, and appreciated. One may gain a knowledge of a subject by speeded reading, but he cannot gain a *working knowledge* of it. To achieve such a working knowledge, technical mastery of scientific material, or high appreciation for the music and sense of great literature, one must read not for comprehension alone, but for *power*—and it is just this *power of reading* that I wish to discuss with you. That is, what is it that makes for power in reading; and what exactly is meant by the word "power" when used in this context?

## The Theory

It was my intent, a moment ago, to imply that theory and fact can be brought together to explain just what it is that makes one student differ from another in his ability to read with what I term "power." To this end, then, I will first outline the basic essentials of the Substrata-Factor Theory; and second, I will report some of the findings of an experiment we have recently completed in our laboratories at the University of California.

The Substrata-Factor Theory of Reading is concerned with the way the mind *mobilizes* sets of *sub-abilities* (which we will refer to as elements) into an ordered arrangement or hierarchy. In varying degrees, according to their existing strengths, the elements of this hierarchy simultaneously stimulate and reinforce each other. They compare and contrast incoming information with existing knowledge leading to a new conception, a new working knowledge, gained from the reading material. This complex ability, with its various elements, we have sought to measure and have termed it "power of reading."

The Theory holds that the auditory, visual, and kinesthetic components of incoming information are ordered and stored in localized cell-assemblies in the brain. Individuals differ in the degree to which they tend to use one of these input channels over others. At the high school level approximately two-thirds of the students are predominantly visually minded; somewhat *less* than one-third will learn better through their auditory senses; and a small percentage (mostly boys) must rely heavily upon the proprioceptive or kinesthetic senses as their most efficient input channel. This part of the Theory gives us the key as to why the majority of a class learn quickly and easily by the Look and Say method, why some children appear to thrive under a system that stresses phonics, and why still others who fail to learn by either of these methods are, in fact, able to learn to read by Fernald's tracing method.

Sets of these cell-assemblies form centers, each with its distinctive function. Oversimplified:

1. The function of one center is to store the memory traces from visual impulses which arise when viewing a concrete object.
2. The function of a second visual center is to store *symbolic representations* of the *ideas about* concrete objects, relationships, or other ideational abstractions. Here, then, is where words are perceived, registered, categorized, and filed for future reference and recall.
3. A third center stores auditory impulses which carry information conveyed by *spoken* language.
4. A fourth center stores kinesthetic impressions from tactile and muscle sensations. The location of such centers in the brain is a long-established anatomical fact (1).

According to the Substrata-Factor Theory, as a result of the on-going cerebral activity during the act of perception (as in reading), the details deposited in the separate centers are now reassociated as faithfully coded representations of the objects themselves. In other words, during reading coded audio-visual and kinesthetic impressions derived from the descriptions of concrete objects are reassembled in the mind—this is comprehension. However, simultaneously with the foregoing process, as a result of the heightened cerebral activity engendered by increased concentration, conceptual abstractions are

500,

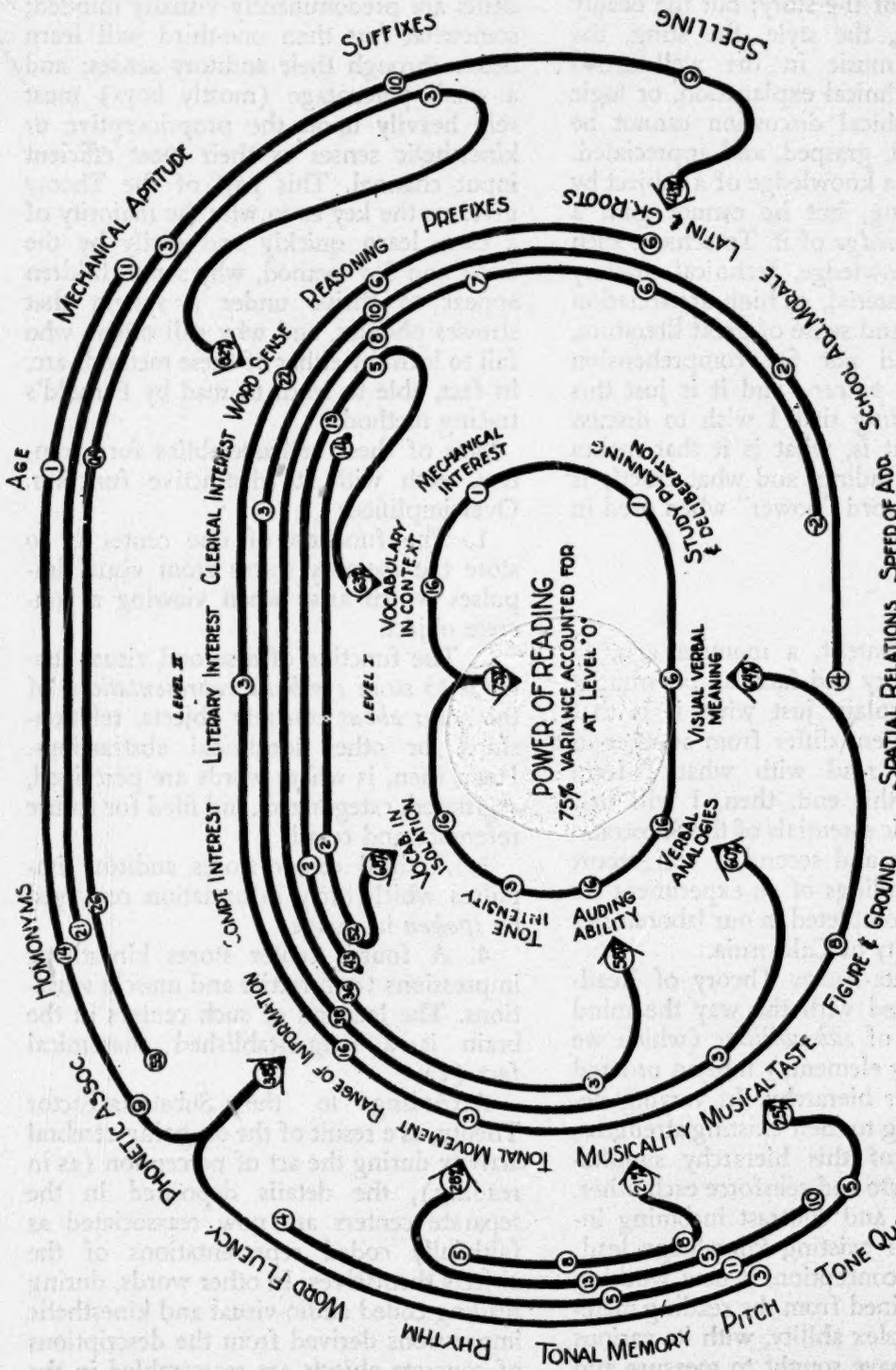



FIG 2. POWER OF READING CONCENTRIC FLOWCHART FOR TOTAL SAMPLE OF 400 HIGH SCHOOL STUDENTS. CONCENTRIC RINGS FROM TARGET CENTER REPRESENT HIERARCHICAL ORGANIZATION OF SUBSTRATA FACTORS AT LEVELS I, II, III IN THE WORKING SYSTEM FOR POWER OF READING. THE DISCS GIVE PER CENT OF VARIANCE ACCOUNTED FOR IN EACH SUBSTRATA FACTOR'S LINE OF SUPPORT. (HOLMES 1961)

wrought by the process of comparing and contrasting the incoming information with relevant information already stored from past experiences—this is power of reading.

It is important to understand that the input channel predominant in sensory perception need not coincide with the modality used in imagination and thinking. In fact, it would seem that the highest reasoning tends toward not the conjuring up of visual, auditory, or kinesthetic images, but of abstract conceptualizations mediated either as (a) subarticulated verbalizations, or (b) vague generalizations unattached to words or coded representations of concrete details.

*Substrata factors,* then, are psychoeducational subsets of information stored in neurological subsystems of cell-assemblies. Such substrata factors stand ready to be *mobilized* into a *working-system* in accordance with the purposes of the reader. When connected into such a working-system, each substrata factor exerts an influence on all other information centers. Hence, the more efficient and the greater the number of associations among the substrata factors, the higher the *interfacilitation* of the total working-system. The explanation of how speeded reading is accomplished rests, therefore, not in the persistent practice of reading easy material, but in persistent pressure forcing the individual to increase the number of the interfacilitating associations. This, in turn, results in a heightened activity of perception, integration, abstraction, and generalization.

Figure 1 presents a diagrammatic model of a working-system for power of reading. The large ball at the apex represents power of reading, the lines-of-support umbellating out from it represent psychoeducational associations between power of reading and the substrata factors at Level I.

Holding to the same logic, the Theory hypothesizes that underlying each of the subabilities discovered at Level I, we may expect to find even more fundamental ones at Level II. Below such secondary abilities, we might further expect to find a set of tertiary elements.

This being the Theory, the task of the experiment was to find whether such a model could, in fact, be statistically constructed; and, if so, what abilities would be found making up such substrata levels.

## The Experiment

In the experiment, 400 students were given some 56 separate tests, including such diverse elements as primary mental abilities, linguistic abilities, auditory and visual perceptual abilities, study methods skills and attitudes, and such interest factors as are recorded by the Kuder interest inventory. A host of psycho-sociological problem areas were also assessed with respect to their ability to explain individual differences in the criteria, Speed and Power of Reading. These variables were analyzed by the Substrata-Factor Analysis. Time does not allow us to go into the statistical details or methodology. Suffice it to say that when this was done, a very interesting set of abilities were indicated as substrata factors underlying Power of Reading.

Figure 2 presents the results diagrammatically, and it will be seen that, under Power of Reading, we were able to account for 75 per cent of the variance distributed among the seven following variables: Vocabulary in Context, 16%; Mechanical Interest, 1%; Study Planning and Deliberation, 1%; Visual Verbal Meaning, 6%; Verbal Analogies, 16%; Auding Ability, 16%; Tone Intensity, 3%; and Vocabulary in Isolation, 16%, at Level I.

It is strikingly apparent that Power of Reading is greatly dependent upon a knowledge of words and the concepts that they symbolize. Notice that Vocabulary in Isolation, Vocabulary in Context, and Visual Verbal Meaning are all different phases of the vocabulary domain. Verbal Analogies itself is reasoning through the manipulation of verbal concepts. Auding ability has to do with listening comprehension of human speech. So it is definite that at the first level the most essential element of Power of Reading is a knowledge of the meaning of words and the ability to manipulate the concepts behind these auditorily and visually perceived verbal symbols on the printed page.

As shown by Fig. 2, at the second level underlying the various forms of vocabulary are a host of other factors such as *Range of Information,* Computational, Literary, and Clerical Interest, Word

502.

Sense, Reasoning, Prefixes, Latin and Greek Roots, School Adjustment, Speed of Addition, Spatial Relations, Figure and Ground, Musical Taste, Musicality, and Tonal Movement.

As shown also by Fig. 2, at the third level Pitch, Phonetic Association, Homonyms, Age, and Mechanical Aptitude all combine to account for 38% of Range of Information (at Level II). Now this, I think, is an interesting result, because of all the elements, Range of Information is the most ubiquitous. Like Reasoning, it underlies the basic verbal elements that enter into Power of Reading at Level I. For instance, it accounts for over half, 52%, of Vocabulary in Isolation, 43% of Vocabulary in Context, 36% of Auding Ability, 38% of Verbal Analogies, and 16% of Visual Verbal Meaning. And yet, we are able to account for only about 38% of Range of Information itself by the more fundamental factors in our matrix. This would lead us to believe that the information represented by this particular substrata factor is information of a specific sort and goes way beyond the mechanics of the language itself. And, if I might say so, this gives us definite proof that those who have criticized our basal readers of the last thirty years have some justification. That is to say, that there has been very little real information given to the student in most of our primary readers up to the present time.

## Implications

Most of the basal readers have been a Dick and Jane, a Bob and Barbara type of chit-chat, centered on exercises which will increase vocabulary. But that vocabulary has been of a very low order and tied to the everyday concepts the child has already learned around the house. What I am saying is that these concepts, for the most part, do not give the child a chance to stretch his mind. He knows nothing more in terms of information, of new knowledge, after having read through a set of primary and elementary textbooks in *reading* than he did before he started, expect that he now knows how to read a certain high-frequency list of words with some fluency. This in itself is good, but the fact that he does not get those basic concepts, or ideas, or information which will help him expand his mind when he begins to read in order to learn is a valid criticism of this type of reader.

Perhaps here we can stress the difference between learning to read and reading to learn. I think that we are prolonging the initial period of learning to read beyond the time that it is proper. Learning to read must also, sooner or later, begin to take on the concepts of reading to learn, because later reading depends upon prior learning, and that prior learning is not only a matter of the right pronunciation or visual identification of words, but also (and more important) the mental manipulation of abstractions and an increased store of pertinent information.

If we were to return, as many people are now suggesting, to the McGuffey type of reader, we would *not* be much better off. There is so much in the McGuffey Readers that would be untenable to most moderns. For instance, a class system is definitely proposed. There is the Horatio Alger type of story told over and over again, which is really not applicable today. While we admire the fortitude of the person in the story, teachers know better than to suggest that hard work on the job is a substitute for education. We know very well that times have changed and that many of the concepts held forth in the McGuffey Readers are no longer practical or tenable. Furthermore, while its code of ethics is unassailable, the manner of its presentation is effusively sentimental.

A hope for the future, in answer to this dilemma, is to introduce into our programs reading textbooks that have not only a graded list of words, but a graded list of *concepts*. And these concepts must become deeper, more difficult and more complex than we have previously thought possible for children to learn. I maintain, I think with some justification, that children are more capable than educators would have us believe. For as they begin to understand more, as the reading material becomes more meaningful, their interest and power of reading will increase.

One bright spot in the developmental reading in the modern curriculum is the introduction of science, modern geography, history, and social studies into the elementary school classrooms. We must have, I think, more of these subjects in our *reading* textbooks; that is, we need the technical words that will carry over into the so-called solid disciplines, keyed to the major concepts that the child must know in order to read in these fields. And the reading teacher is in a strategic position to help the child expand and consolidate those substrata elements involved in power of reading, of which the most important is Range of Information.

### REFERENCE

1. Holmes, Jack A. "The Brain and the Reading Process." *Claremont College Reading Conference: Twenty-second Yearbook.* Claremont College Curriculum Laboratory, 1957, pp. 49-68.

161.

Vol. 10, 1965



# B. UPPER ELEMENTARY LEVEL

## 1. Critical and Creative Reading

HELEN HUUS
University of Pennsylvania

CRITICAL reading" requires the evaluation of the material, comparing it with known standards and norms, and concluding or acting upon the judgment. Russell,[1] in his classic work entitled *Children's Thinking*, points out that critical thinking is comparative and that a knowledge of the field is a prerequisite.[1]

"Creative reading," on the other hand, is concerned with the production of new ideas, the development of new insights, fresh approaches, and original constructs. Russell, too, emphasizes that creative thinking involves new ideas, "whereas critical thinking . . . involves reaction to other's ideas or to one's own previous ideas. Critical thinking can be creative in that it can produce new insights for the individual, but those insights are concerned with previously established conditions."[2]

### Critical Reading

If students are expected to read critically, what are some of the necessary skills? Those needed could be classified into two broad categories—inference and evaluation. The critical reader swings from one to the other as he reads, first inferring, then evaluating his inference against his experiences and other data, then inferring and judging again.

*The author.* A reader ought to be concerned with the person who has written the material, and, therefore, he must make certain inferences about the author. He ought first to ask, "Why did the author write this? Was it to advertise, to propagandize, to present information, to promote a point of view, or to entertain?"

A related question ought to be, "How competent is this author to write an article on this topic for this purpose?" To answer this, the author's background, education, reputation, vested interests, and professional position need to be investigated. Practical exercises for doing this are included in the 1948 edition of *The Teaching of Reading in the Elementary School.* Here McKee suggests finding biographical information for each author, then comparing his qualifications with the subject on which he is writing. It is often not difficult, even for quite young children, to recognize that one or the other seems to be best qualified.[3]

Sometimes locating information about living authors, however, poses a problem, for often the only source of information is the dustjacket of a book, the comment column in a periodical, the advertisement from a publisher, or the reputation of the publishing house that has chosen to publish this author's works.

When expressing an idea or a point of view, it is difficult for an author to escape from himself and create an impression different from the kind of individual he really is. His competency becomes particularly important when facts disagree and students look for help from recognized authorities. At any rate, knowing the author is an important factor in criticism. Once the information is acquired, these bits must be evaluated.

*The content.* A second aspect for inference and evaluation is the content itself—its adequacy or completeness, its accuracy and recency, its inherent logic and consistency, its suitability to the purpose at hand. Questions to be asked here include: "Are *all* the facts presented? Are the facts presented true? Are the facts presented logically and in perspective?" Exaggerated statements abound in advertising; willful distortion of facts is rampant in propaganda; and false assertions are made directly or implied, occasionally from ignorance, but sometimes, too, from lack of proper checking or even willful distortion.

Obviously all facts cannot be presented in a short selection nor is it easy to determine the total body of fact, but the perspective implied by the relative importance given to various topics should be pre-

[1]David Russell, *Children's Thinking.* Boston: Ginn and Company, 1956, pp. 283ff.
[2]*Ibid.*, p. 306.
[3]Paul McKee, *The Teaching of Reading in the Elementary School.* Boston: Houghton Mifflin Company, 1948, Chapter 14.

504.

served so that tentative conclusions can be made from the data available, with necessary modifications when additional data warrant it.

McKee also describes exercises for checking the validity of the printed statement and uses an example about the making of paper. Children can learn to delete irrelevant sentences in a paragraph, to note the omission of information needed for an understanding of the whole, to recognize ideas placed out of logical order, to separate factual statements from ones of opinion.

*The style.* In addition to the competency of the author and the quality of the content, the manner in which the material is written—its style and "tone"—also influence the critical reader. "Style" refers to the precision of vocabulary, its range and vividness; to the cadence of the sentences; to the subtle use of modifiers and figures of speech; to such techniques of elaboration as analogy, description, anecdote, or exposition; to the organization — the "unity, coherence, and emphasis" so dear to the hearts of English teachers. These elements, when combined, lend an appropriate tone to the total—solemn and dignified, lighthearted and gay, clear and simple, or whatever the topic demands. The reader should be able to join in with the spirit of the work and to lose himself as he identifies with it. He is truly "there," and when this occurs, he knows he has met an artist with words. While he may not always be able to isolate the various techniques that cause him to feel so involved, nevertheless he recognizes that this piece of writing approaches his standard and, therefore, is a better work than one which leaves him cold as last night's dinner.

Another aspect of tone, especially important in the materials written for elementary school children, is the approach that authors take when writing for children. Condescension and a patronizing air are unacceptable, and children are quick to spot it.

## Creative Reading

A reader who has learned to judge what he reads, both content and manner of presentation, still fails to obtain the greatest pleasure, enjoyment, and even knowledge from his efforts unless, in the doing, he gives something of himself. He must amalgamate the total into his own background of information, what the psychologists call his "apperceptive mass," and reorganize his ideas to accommodate his new learnings, his new attitudes, or his new feelings. In this reorganization, he gains new insights—sees the same things from a different point of view, sees aspects hitherto not noticed, savors the color and texture of a word or phrase, stores away a new visual image, or feels empathy with characters he has previously ignored or misunderstood. Russell puts it aptly when he says that, in creative reading, "the solution or conclusion (to a problem) represents a bit more of the child himself, is fresher and more personal than a routine solution."[4]

Creative reading requires, then, certain skills of comparison and synthesis; comparison to see relationships between parts of sentences, paragraphs, and longer sections in order to arrive at the total, between causal factors and their accompanying results; between juxtaposed events, and between the actions of a character at different times; and comparisons of time and space, place and sequence. From these understandings the creative reader can produce his own combinations, his own synthesis of ideas, and anticipate what the outcome will be. That it is not the same as the author's need be of little consequence, and occasionally children have made a much more logical ending to a story than has the author himself.

Creative reading thus calls into play the child's imagination, his flow of ideas, his ability to see comparisons where no obvious one exists, to relate what he is reading to his own peculiar background of remembered activities, and to make the new learning so much his own that it has always seemed a part of him. This is the real contribution which reading makes to personality development, to the development of attitudes and ideals, to the making of the "educated man." And this is the goal of education, at whatever level.

But for teachers and others to know what lies behind the interested look, the quick nod, the perceptive twinkle re-

[4]Russell, *op. cit.*, p. 13.

quires that the child express the ideas he has been accumulating. Thus we see full circle in the language arts—from the receptive (reading) through evaluation and assimilation to the expressive (speaking or writing).

Creative reading ultimately resolves itself in the development of "taste," that "power of discerning and appreciating fitness, beauty, order, congruity, proportion, symmetry, or whatever constitutes excellence, especially in the fine arts and *belles lettres;* critical judgment, discernment, or appreciation."[5] As each reader makes up his own mind and follows his own judgment, individuality is preserved. He has no need for "tastemakers," for he has confidence in his own ability and need not wait for someone else to decide for him. He can interpret the situations in the light of his experience and understand analogies, allusions, figures of speech, connotations, and denotations; he can reorganize the ideas he receives into a pattern that is unique and personal. He can express his reorganized learning through various media—word and song, gestures and actions, materials and composition through the very make-up of his personality. The actual product may be as fleeting and transitory as spoken language or as lasting a monument as the Statue of Liberty.

## Conclusion

If reading has produced real conviction, then the reader must be willing to meet all comers and defend his ideas, which must be firmly based on the integrity of his interpretation, on accurate factual data, and on his unique thoughtful approach. But he remains able to "live with uncertainty" and to revise his ideas to another and still another plan as new information and experiences are acquired.

The skills of critical reading require an interpretation and evaluation of the author's qualifications and purpose of the internal consistency, accuracy, recency, and perspective of the content and of the style and tone of the presentation.

Creative reading requires skills of comparison and synthesis. It implies that the reader places known facts into a new organization and gains new insights that contribute to his development of taste. By these means do teachers create literature, discriminating, and appreciative readers. But these two are not mutually exclusive, nor are they synonymous. The reader does both, and the two overlap and interact to give him the fullest meaning.

[5] *Webster's New International Dictionary of the English Language.* Second edition. Unabridged. Springfield, Mass.: G. & C. Merriam Company, Publishers, 1957, p. 2585.

506.

162.

Vol.7, 62

# 17. Concrete Thinking as a Factor in Reading Comprehension

161.

JAMES JAN-TAUSCH

Educators have long been concerned and perplexed by the children of normal or superior intelligence who do not seem to be able to profit from instruction in the field of reading. Much has been written about the diagnosis of reading difficulty, and much has been done to improve the tools used to measure the factors involved in the reading process. Materials for use in the reading process have become more and more plentiful and methods of instruction have come under close scrutiny by the lay public as well as by the professional educators. Despite the advances made in the past half century there still remain ten to twenty-five per cent of the school population who have varying degrees of reading disability.[1] The diagnostician has frequently found, after gathering evidence of a child's vision, hearing, intelligence, experiential background, emotional stability, and ego development, that he has not arrived at a satisfactory answer to his problem. The missing factor (or factors) is still being sought.

That the missing factor is constitutional in nature and may be found in the neural development of the child or the brain damage of the child, is more than a mere possibility. Delacato reported his findings in this area to this very conference in 1960, that such lack of development or damage exists and produces an effect which limits the child to concrete behavior, has been demonstrated by Goldstein and Scheerer and others in studies started as far back as the 1930's. To be able to prove that behavior limitation of a concrete nature is an important factor in

[1]Guy L. Bond and Miles A. Tinker. *Reading Difficulties.* New York: Appleton-Century-Crofts, Inc., 1957, p. 7.



reading retardation could possibly contribute to the discovery of an important elusive missing factor in reading retardation diagnosis.

The reading act requires facility in comprehending symbols. To comprehend symbols the child must acquire methods of abstracting meaning through the use of experience, context clues, thought phrasing, recognition of semantic variations, and story organization. "The mind is assailed by every word in a paragraph. It must select, repress, soften, emphasize, correlate and organize, all under the right mental set."[2] Growth in reading then depends upon the child's ability to build thought units from sight words, to analyze the structure of words, to see relationship and common properties in words, phrases, and sentences.

Finally, reading may be thought of as a complex response to symbol-stimuli. It is made by the total organism and involves many mental processes. The interests, values, and attitudes of the organism may determine the particular response to any specific reading situation.

The study I report to you is concerned with the influence of a particular attitude, *concrete thinking,* upon the reading response.

I. **The Problem.** The purpose of the study was to determine the relationship, if any, existing between reading comprehension and concrete thinking as measured by standardized reading achievement tests and by selected parts of the Goldstein-Scheerer battery of abstract and concrete thinking tests.

*Abstract attitude or behavior* is interpreted in this study in the terms of Goldstein and Scheerer as conscious activity in the sense of reasoning, awareness, and self-accounting of one's doing: the transcending of the immediately given situation, the specific aspect or sense impression; the deriving of common from particular properties; the orientation of action by a rather conceptual viewpoint, be it a category, a class, or a general meaning under which the particular object falls; the detaching of one's self from the given impression, and the individual thing representing an accidental sample or representative of a category.

There are various degrees of abstract behavior corresponding to the degrees of ideational complexity which the performance in question involves. For instance, the highest degree of abstract behavior is required for the conscious and volitional act of forming generalized and hierarchic concepts or of thinking in terms of a principle and its subordinate cases and to verbalize these acts. Another instance of similar abstract behavior is the act of consciously and volitionally planning or initiating insightful behavior without a distinct awareness or self-accounting of every phase of its further course. As a special instance of the latter degree, the understanding of symbols or metaphoric thinking and intelligent behavior in everyday life may be considered. Here it is mostly the directional act which is abstract and the ensuing performance runs off on a concrete plane—until difficulties arise. Then the required shift again calls into play the abstract, anticipatory deliberation, and so on.

A gradation applies just as well to concrete behavior. The most concrete way of dealing with situations or things, is to react to one aspect of them exclusively; i.e., reacting to one global impression or to one color alone, to a particular form of an object, to one property of it, as, for example, its practical usage. A less concrete approach is indicated when the person is unreflectively embracing in his scope the total, palpable configuration of an object or situation, and is not determined in his response by any one impressive peculiarity of it. An unreflective variation of perspective toward the situation is less concrete than a rigid fixation to one aspect of it.

It would seem, therefore, that a child's learning progress in reading, provided he has the necessary intellectual capacity, follows closely his freedom from the limitations of concrete thinking.

Specifically, there should be an increase in the reading comprehension achievement of the child as the ability of the child to think abstractly increases, and a retardation in reading comprehension as the child is limited to more concrete levels of thinking. There should be a positive statistical

[2]Edward L. Thorndike, "Reading as Reasoning: A Study of Mistakes in Paragraph Thinking," *Journal of Educational Psychology,* 8:329, June, 1917.

507.

relationship between performance on the Goldstein-Scheerer tests of abstract and concrete thinking and the reading comprehension results as measured by a standardized reading comprehension test. It is also assumed that the child cannot behave in reading in a more mature manner than his level of capacity to think. It is further assumed that reading comprehension is essentially a thinking process which requires ability to manipulate verbal symbols.

One hundred seventy children were chosen for the study, all of whom were pupils of the public schools of Springfield, New Jersey. The intelligence quotients of the children ranged from 79 to 133. Two-thirds of the group had I.Q.'s ranging between 90 and 115 as measured by the California Short Form Test of Mental Maturity.

There were 32 children from the fourth grade, 40 from the fifth grade, 46 from the sixth grade, and 52 from the seventh grade. At each grade level half the number were boys and of each sex half were advanced readers and half were retarded readers as measured by the California Reading Tests Form CC of the Elementary series for the children in grades 4, 5, and 6, and Form AA of the Intermediate series for the children in grade 7.

Each child was administered the Color Form Sorting Test and the first six designs of the Cube Test in strict adherence to the instructions given in the respective manuals. These tests are designed (a) to detect impairment of abstract behavior and assess degree and extent to which different performance fields have thereby suffered, and (b) to provide diagnostic criteria of pathological concreteness. The tests are performance tests in which the use of language is not essential, though verbal responses are not excluded. The tests present tasks where proper solution requires an abstract approach manifested in the performance and failure or errors reveal abnormal concretization.

The resultant data was assembled and separate studies were made according to sex, age, and intelligence, in addition to a grade level and total group study of the concept attitude and reading achievement results.

The evaluative procedure recommended by the authors of the tests was examined for criteria by which levels of success or failure on each item could be recorded.

Data were compiled in the form of "yes" or "no" on each test by each pupil. These and other pertinent data were analyzed according to *chi*-square formulas for statistical significance.

## Conclusions

1. An over-all comparison of performance showed that a significant difference in abstract and concrete behavior was found to exist at the one per cent level of confidence between the advanced and the retarded readers when concept attitude was measured by the Color Form Sorting Test and the first design of the Cube Test.

2. Advanced readers with but few exceptions are also abstract thinkers. The exceptions may be due to validity error in the Goldstein-Scheerer tests, in faulty administration or scoring of the tests or the exceptions may be erroneous categorizing of the advanced reader. The exception may also be due to factors unknown.

3. Retarded readers are retarded because of limitation to concrete thinking but the data tends to bear out many previous studies that indicated as causes of reading retardation such other factors as vision,[3] hearing,[4] poor ego development,[5] and poor instruction.[6]

4. Girls tend to behave more abstractly than boys. This may be a clue to why boys have a higher incidence of disability in all phases of language than do girls.

5. The significance of the relationship between concept attitude and reading achievement tends to become greater in the higher grades. This suggests the possibility that reading comprehension at higher levels takes on more abstract qualities.

6. Although intelligence testing almost always includes tests of concept attitude, it is possible to have similar intelligence

[3]C. A. Selzer. "Lateral Dominance and Visual Fusion," *Harvard Monographs in Education, No. 12*, Cambridge, Harvard University Press, 1933.

[4]G. L. Bond. *The Auditory and Speech Characteristics of Poor Readers*, New York, Bureau of Publications, Teachers College, Columbia University, 1935.

[5]L. K. Barber. *Immature Ego Development as a Factor in Retarded Ability to Read*, Unpublished Ph.D. Thesis, University of Michigan, Ann Arbor, 1952.

[6]L. Cole. *The Improvement of Reading*. New York: Farrar and Rinehart, Inc., 1938.



quotients and dissimilar reading achievement when age and grade are held constant. As intelligence scores are usually the average or sum of several factor scores, it is possible that similar I.Q.'s may in one case include an abstract attitude and in another case the abstract attitude would be missing.

7. The results of this study rejects the null hypothesis that there is not a significant difference in ability to behave abstractly between advanced and retarded readers.

508.

163.

Vol. 10, 1965

# 12. Laying the Foundation for a Critical Reading Program in the Primary Grades

MARION D. JENKINSON
University of Alberta, Edmonton, Canada

ONE OF the major misconceptions current amongst reading teachers is that training in critical reading should be delayed until later grades. It is true that decoding symbols must precede more complex skills involved in reacting to the meaning of the code, but an attitude of inquiry towards the content of the code must be instilled from the beginning.

The argument that primary children are not capable of making logical or rational judgments is only valid in so far as children are asked to make judgments concerning abstractions, outside the range of their actual or vicarious experiences. Moreover, there is increasing evidence that the ability to read critically does not develop automatically as a result of general development of reading skills. The point of inquiry, the art of self-posed question, must be developed from grade one.

Consideration of three main facets seems to be important: understanding the range of development of verbal comprehension of which children are capable at this stage, cultivating creative questioning on the part of both the teacher and the reader, and providing a variety of opportunities for expression of critical reaction.

## The Development of Verbal Comprehension

Traditionally primary grade children have been characterized as being concerned with the "here and now." Recent studies have shown that the understanding of children can be broadened to include concepts outside their own egocentric experience through exposure to situations which demand that they extend their concepts. A corollary of most of these studies has been that the experience becomes more fruitful if the child can be led

509.

to verbalize his ideas.

Undoubtedly too, a child has a much greater listening than reading comprehension at this stage. His vicarious intake of ideas in school is largely through listening and reading, but in the early grades his reading is limited and his listening is extensive. The child's exposure to books should not be limited to his own reading but teachers should read informative material as well as stories to children. Children are noted for their constant "why" questions, but only gradually do they learn that books are a major source of answers.

Though most of the words that a child meets in his early reading books are within his listening vocabulary, it should not be taken for granted that he understands the concepts behind the words he reads. A constant check on the accuracy of his understanding and increasing awareness of the function of words is important.

Studies of oral language development indicate that children use complexity of speech patterns not found in reading material. Unconscious usage, however, does not imply that they can understand similar complexities when used by others. At this stage, too, children are beginning to classify their ideas, and to link one concept with another. Frequent discussion, not merely the recapitulation of facts, but talking about the various possible ideas which are inherent in what they read or hear, must be fostered by primary teachers.

## Creative Questioning

The posing of provocative questions by the teacher about the reading matter is still one of the most effective ways of stimulating children to think as they read, and to think about what they read. Unfortunately, a great many questions asked by reading teachers check repetition of irrelevant facts rather than stimulate productive thought. Five types of questions appear to be essential to developing a critical attitude towards what is read.

1. Since it is necessary to ensure literal understanding is complete before we can begin the rudiments of critical reaction, the first level of questions should be designed to check literal comprehension. These would include the recall or recognition of detail, of the sequence of the events, or the understanding of the appropriate meaning of the word, to identify things mentioned most frequently.
2. In order to develop the synthesis of the author's ideas, questions which allow the child to say in general, and if necessary in some detail, what he has just read, should be presented.
3. Next queries to see if he can give a judgment about the truth or reasonableness of what he has read in the light of his own experience. This will involve the ability to anticipate outcomes, to make "an educated guess" to draw simple conclusions or inferences; to transcend the bounds of a situation, but to recognize the limitations imposed by the writer.
4. Even young children can realize the author's tone and mood, the type of language he uses if questions are posed at their level.
5. Finally, even primary children can make intelligent comments about their reading, through questions which elicit comparisons with their own experience, or the author's purpose of reacting to the author's style.

These bases for questions may sound pretentious for children in the early grades but it is possible to extend their thinking in these ways.

While the teacher can do much to stimulate thinking by provocative questions, the most important kind of question educationally is the self-posed question. Questions posed by the teacher do not always cover the special needs of difficulties peculiar to each child. Children learn to think for themselves best when solving their own problems. Consequently, to get children to pose their own questions is even more effective than those suggested by the teacher. Children can be encouraged to do this as they read first orally, later silently. With prompting, pupils learn how to query the sequence of actions, or examine the traits of a character, or to check the accuracy of information. Moreover this is also an essential step in teaching them how to study. Creative questioning then is still one of the most effective methods of both teaching and learning which operates in our schools.

## Expression of Critical Reaction

General discussion stimulates pupils to make simple comments about their enjoyment of a story, or to make comparison with their own experiences, or to judge the degree of realism present in the material.

Such discussion can lead to questions about the author, the tone and mood of a story, the authenticity or accuracy of the

characters. Children may compare actions, speech, and underlying motives of characters with their own. From the beginning it is important to admit that there are different possibilities in interpretation, that all characters in all stories may not appeal to all children, but even at this early stage children should be encouraged to back their opinion with facts.

Children may gradually be led to the understanding that authors differ in their purposes for writing, that some write to entertain, some to inform, some to persuade and some to arouse feelings. Moreover, many children can make excellent judgments in assessing how far an author succeeded.

Children may be able to formulate unconsciously the difference between two major types of content, the one factual and the other imaginative. Factual material demands the interpretation of the precise meaning of the author, and evaluation depends upon the readers' knowledge of the subject. Imaginative material on the other hand permits the reader to attach ideas and meanings of his own, but these must always be within the framework of the author's theme. Too often questions and discussion at the primary level permit children to indulge their fantasies without coming to grips with the thoughts of the writer.

As soon as they are able, pupils should be encouraged to write their comments. The following criticism by Mike, a grade two pupil in Saskatoon, illustrates that critical reading can be developed early.

> You should not believe everything you read because you may read a book that says an ostrich grows to be two feet tall and weighs sixty eight pounds which is not true.
>
> I have found two authors that made a mistake. They are Neurath who wrote the Wonder World of the Deep Sea and Mary Taylor who wrote Animal Travellers.
>
> Neurath's mistake was that she said that the sea-cucumber was the home of two little black worms. But Mrs. Bumphery and the class found that Neurath was wrong because they found in the Comptons encyclopedia and Mr. Hume who has an important job in the office down town thought the sea-cucumber was a thing that looked like a cucumber with tentacles. He checked it in the Britannica and found he was right, and the Comptons said the same. Mary Taylor's mistake was that she said everything gets out of the ants way when they are on a march. But we found in a book called Jungle Animals by Frank Buck which said a pangolin, which is an anteater which does not get out of an ants way.
>
> Podondorf said that all animal babies that are born alive drink milk. But some tropical fish have their babies born alive. These fish certainly don't have babies that drink milk.
>
> All encyclopedias are reliable except the Golden book encyclopedias which sometimes exaggerates a bit.
>
> I have found two authors that I think write good nonfiction books. Every book they wrote I read is true so far. Their names are Frank Buck and Zim.

It will be noted that Mike backs his own knowledge with reference to outside authorities, on personal knowledge as well as the authority of the printed word. Mike, Mrs. Bumphery, and the class have consulted not one but several reference books to check facts. And this is capped with Mike's irrefutable logic that "an anteater does not get out of an ant's way," nor can tropical fish drink their mother's milk. Evaluation of the comparative reliability of the encyclopedias is included, and praise for authors who are accurate. What better evidence that critical reading can be taught early do we need?

## Conclusion

Why is it that many high school students fail to develop their potential for critical reading? Most high school students have either an undue reverence for the printed word or give a mental shrug when faced with evaluation of what has been read. Perhaps this halo around authors and their writings has arisen because we have not attempted to teach critical reading early enough. While we do not want to develop readers who are carping critics, and who "murder through dissection," we should be producing healthy sceptics who seek not to find fault, but have learned in Dryden's terms "the art of judging well."

511.

164.

## 2. Critical Thinking

### a. Reading—Developing the Mind

170.

MARION E. D. JENKINSON

It has long been a truism in the reading field that reading is a type of thinking which is triggered by printed symbols and these symbols represent words. But what is the nature of this thinking aroused by reading, and how does it operate? Two basic assumptions are made in this paper. The first is that thinking is a skill which can be trained. Secondly, thinking of whatever type is a high level response which, whenever it occurs, must be able to draw upon information already acquired, and has to make use of responses, perceptual and otherwise, that are established.

All the attributes of bodily skills could be applied to thinking. This description of skilled actions could well be compared to the "thinking-reading" process.

Skilled performance must all the



> time submit to receptor control, and be initiated and directed by the signals which the performed must pick up from his environment.[1]

But the thinker is always more than a thinking machine, and the reader will never deteriorate into a mere reading machine. We need to train students to become skilled thinkers as they read.

Bruner has suggested in his book *The Process of Education* that we should realize the importance of teaching children to recognize and appreciate the structure of what they learn.[2] It seems to me that in the field of reading there are three types of structure that are called into play. The first is the structure imposed by language: the structure of language and the function of words and how both of these are related to the act of reading. Then there is the structure of the "thinking-reading" process. Finally, there is the structure of the content of what we read: the subject matter. In this short paper I am limiting myself to the nature of thinking in reading, and some observations of pitfalls in language functioning.

#### The Structure of Thinking in Reading

Russell has classified thinking into five main types: associated thinking, convergent thinking, problem solving, critical thinking, and creative thinking.[3] Stauffer has suggested recently that all these take place at some time in the reading act.[4] As he reads, the reader associates symbols with meaning, and then he fuses the meanings bringing to bear his previous understandings, and putting ideas together to make sense. Convergent thinking also takes place when the ideas stimulated by the words are refined and defined as the reader proceeds. From the succession of ideas, concepts are formed and conclusions drawn. Problem solving types of thinking also occur very frequently in reading. When we ask children to read to answer questions we are setting them a type of problem. Moreover, many kinds of reading materials initiate problems and attempt to elucidate these through writing about them. A mature reader exercises his critical faculties as he evaluates and interprets what he reads. He weighs the evidence against his own experience and accepts or rejects the content on the basis of its logical validity and his own previous knowledge. It is usually after reading has finished that creative thinking may take place, and new ideas may be engendered. This division of types of thinking is interesting from the point of view of classification. However, it is not easy to translate these descriptions into practical methods which we can use in the classroom. So let us examine thinking from another angle.

A British psychologist, Bartlett, has suggested two main types of thinking.[5] Taking his analogy from science, he propounds that there is thinking within a closed system and thinking within an open system. A closed system is defined as one in which there are a limited number of items, units or members, and the properties of the members which are to be used are known to begin with and do not change as thinking proceeds. In an open system, on the other hand, there are innumerable items the properties of which are not necessarily fixed previously. It would appear that the thinking aroused by reading partakes of both these types of thinking.

Bartlett suggests further that in any thinking within a closed system there is what he terms a "gap filling process," which it is necessary to complete before thinking can take place. There are three possibilities for this "gap filling"; and each of these can be linked to the reading act. First there is interpolation; that is information inserted by the reader in order to understand and to complete for himself information and ideas provided by the author. Extrapolation must also be undertaken by the reader, because if he is to fulfill the total reading act, he must go beyond the information presented and draw inferences and conclusions from it. Perhaps these will be other than those inferences and conclusions which the

[1] F. Bartlett, *THINKING: An Experimental and Social Study*. London: Allen & Unwin, 1958, p. 14.
[2] J. S. Bruner, *The Process of Education*. Cambridge: Harvard University Press, 1960.
[3] D. H. Russell, *Children's Thinking*. Boston: Ginn & Co., 1956.
[4] R. G. Stauffer, "Reading and the Habit of Credulity" in *The Science and Philosophy of Reading*, Proceedings of the 41st Annual Education Conferences. Newark, Delaware: University of Delaware, The Reading Study Center, 1961.
[5] F. Bartlett, *op. cit.*

512.

writer has stated directly. There is a third possibility. The elements may be given but something remains to be done with them which is neither interpolation nor extrapolation, but interpretation or rather re-interpretation or re-formulation from the angle of the reader.

Now all these aspects will include inference, deduction, drawing conclusions, and making generalizations. The competency of the reader will depend upon his ability to "bridge the gap"—to make the "educated guess." We have long acknowledged that children must be taught to read between the lines and beyond the lines.

The problem arises, however, that we cannot think of reading just in this quasi-scientific fashion because a good many of the variables, particularly those which reside in the reader, are not within the control of the author or even of the reader himself. We have, then, to establish a situation in which the reader learns to know himself, his own attitudes, and the probable types of mistakes he will make, and what are the essential problems which occur when we use words to stimulate thinking.

The quality of thinking aroused by reading will depend upon the quality of the author's thinking, but also on the ability, experience, and competency of the reader to interpret the symbols that the author has chosen to use. We need to look at interpretation and the use of words, and their structure in language, for the reader needs to learn the strategies of "language-games."

### Strategies in Language Functioning

The philosophic argument as to whether words are basic to thinking does not arise when we are dealing with reading and thinking. In the last twenty years, semanticists,[6] linguists,[7] and analytical philosophers[8] have stressed that "the meaning of a word is its use in the language." Critical awareness of the meanings of words as they function, and how to analyze and assess the many factors that affect meaning must be taught.

[6]S. I. Hayakawa, *Language in Thought and Action*. New York: Harcourt, Brace & Co., 1949.
[7]C. C. Fries, *The Structure of English*. New York: Harcourt Brace & Co., 1952.
[8]L. Wittgenstein, *Philosophical Investigations*. Oxford: Blackwell, 1958.

There are two facets, however, to th examination of strategies in langua functioning. There are problems whic words impose upon thought and also pro lems which thought imposes upon word While pondering how we can best tackl the latter problem, the Confucian proverb "A man who has committed a mistake and doesn't correct it, is committing an other mistake" came to mind. Errors i thinking may be prevented by illustratin and presenting examples of common pit falls and fallacies. A simplified course i classical logic, adapted to the needs and capabilities of students at different levels, would make readers more aware of the moves and checks in language games.

A recent book by Burton, Kimball and Wing[9] devotes several chapters to this problem. They include, in Chapter 11, an excellent, comprehensive summary of the sources and types of errors. Mention can be made here of only a few of these.

In addition to those mentioned previously, errors can occur in *interpretation* of word, phrase and sentence, and total meaning because of the following:

1. "Glittering generalities" (the term used by propaganda analysts)
2. Vagueness and ambiguity
3. Equivocation and false reference
4. Jargon, and etymological fallacies
5. Syntactic and accent ambiguity.

Failure may also occur because the reader does not see the *relationships* between the *ideas* aroused by the words. Three aspects of these are:

1. Failure to analyze the problem or topic in order to discover the principles, or persons, or points of conflict involved.
2. Failure to recognize the pattern of the problem and the method of presentation, which may be descriptive, critical, legal, expository, creative, artistic, and so on.
3. Failure to assess the basic hypothesis, which may be impractical or not feasible, or irrelevant. A multiplicity of hypotheses may preclude any formulation of a conclusion.

Errors which occur in reading interpretation through faulty logic are almost innumerable. Again some of the most prominent ones only can be mentioned. Burton suggests twenty-six which arise frequently in inductive thinking, when we reason from the particular to the gen-

[9]William H. Burton, Roland B. Kimball and Richard L. Wing, *Education for Effective Thinking*. New York: Appleton-Century Crofts, Inc., 1960.

513.

eral. The most prominent which occur in reading seem to be:

1. Generalization on the basis of insufficient or unrepresentative instances.
2. Ignoring contradictory instances and failure to make them fit in with the total conclusion.
3. Statistical fallacies (an important aspect in the modern age). These would include drawing inferences about individuals from the measures of a group, imputing causal significance to correlation, non-representative sampling, neglecting to assess the method of collecting statistical data, and to test the consistency of data, and assuming falsely that all other variables except those measured and compared, remain constant, and many more.

Many of the fallacies of classical logic are broadly deductive and consist in drawing inferences which are not justified by the assumptions nor by the generalizations. Some of these which often confuse the reader are:

1. False assumptions are made or implied by either the author or reader.
2. Exceptions are overvalued or ignored.
3. Begging the question (Petitio Principii), by assuming (wrongly) the conclusion is proved, or by so framing a question that a direct answer involves admission of the assumption.
4. Introduction of irrelevant argument for the purpose of confusing thinking. All the classical types occur here.
   (a) You're another. (Tu Quoque).
   (b) Argument against the man. (Ad hominem).
   (c) Appeal to popular prejudice. (Ad populum).
   (d) Appeal to reverence or authority or prestige. (Ad verecundiam).
   (e) Appeal to pity. (Ad misericordiam).
   (f) Appeal to the purse.
5. Introduction of non-sequiturs.
6. Misuse of analogy.

Finally in our present age of mass communication there are rhetorical devices for confusing thought, particularly group thought. Some of these most commonly used are:

1. Engendering confusion by the use of evasion, or slogans and cliches, special pleading and the use of statements of doubtful propositions.
2. Attempting to divert attention from the central thought through the use of the 'red herring' and evasive speculation concerning a parallel rather than an actual situation.
3. Various methods of delaying or blocking, such as gradualism, academic detachment, aggressive raising of objections, repeated affirmation, and the arbitrary, dogmatic appeal to prejudice, should all be recognized for what they are.

Although this list of errors and pitfalls in thinking is a long one, it should not be an impossible task to devise material which would give a student practice in detecting thinking strategies and lead to a self-critical attitude towards his own thought processes. Such material would need to be selected in accordance with the students' stages of development in both thinking and reading.

**Conclusion**

The title of this talk was chosen to emphasize the fact that in developing the types of skills and abilities mentioned previously, we cannot confine this to a narrow concept of the function of reading. Inevitably we shall be involved in developing the conscious and unconscious, perceiving and thinking experiences of the individual. If we can develop the mind through reading, we should make a significant contribution to "Education for Effective Thinking."

514.

Vol. 9, 64

165.

# 4. Comprehending
# 14. Comprehension

JAMES F. KERFOOT

INSTRUCTIONAL programs in reading at all levels have been greatly concerned with the development of the ability or abilities that have come to be known as reading comprehension. Comprehension is likely the most complex area of reading instruction and is surely the most confused one. This paper addresses itself to the problem of confusion in comprehension and discusses the following four topics:

1. What are the areas of confusion?
2. What are the critical problems in reading comprehension?
3. What are the sources of confusion?
4. What recommendations are indicated?

## Areas of Confusion

*Difficulties in Reading Textbooks*

One major area of difficulty encountered by the student of reading comprehension involves the reasonable but highly individual use of terminology by the authors of reading textbooks.

*Classification by Units.* Reading comprehension has been frequently classified by units of material. Uniqueness is attributed to the reading behaviors involved in comprehension of words, phrases, sentences, paragraphs, and total selections. These behaviors are thought by some to represent "general reading comprehension ability." Terminology is fairly consistent within this classification scheme.

*Classification by Rate.* A second type of classification involves rate or the care which is devoted to a comprehension task. The following examples illustrate this type of comprehension and some of the vocabulary difficulties.

Yoakam (5) lists: Careful reading, normal reading, rapid reading, and skimming.

Berg, Taylor, and Frackenpohl (1) list: Careful reading, usual reading, accelerated reading, and selective reading. They break down selective reading to include skimming and scanning. Skimming for Yoakam includes scanning.

Spache and Berg (3) consider skimming and scanning as types of rapid reading, while Berg, Taylor, and Frackenpohl are careful to distinguish skimming and scanning from accelerated reading which is the equivalent of Yoakam's rapid reading. Rate classifications by other theorists add to the confusions which are evident here.

*Classification by Purpose.* A third classification still more confusing is concerned with reading for various purposes and involves what Bond calls "the specific comprehension abilities." Since reading purposes may be so varied, this type of classification is often elaborate and the commonalities among classifications are often obscured.

*Difficulties in Reading Tests*

A second major area of difficulty involves the differences in tests of reading comprehension which purport to measure a particular ability. Perhaps the greatest point of weakness is the test which measures "general comprehension ability." Tests of specific comprehension abilities are even more difficult to compare in terms of stated objectives and the responses involved.

*Difficulties in Reading Programs*

A third major area of difficulty involves the materials of instruction. As long as teachers follow step-by-step the program outlined in the teacher's manual, they are not troubled by the kinds of problems we have been discussing. But teaching involves much more than following a long range plan. Effective instruction demands goal clarity. In the present state of comprehension, ambiguity predominates.

## Critical Problems in Reading Comprehension

*Problems in Research Interpretation*

The first critical area in which ambiguity has been disabling is the interpretation of research. Suppose, for example, that two investigators comparing the same two methods get conflicting results in vocabulary and reading comprehension. Can these results be directly compared? Many factors might account for the observed differences, but let us consider the effect of terminology alone. How is vocabulary measured? Kelley (2) in 1932 located 26 separate item forms for vocabulary tests used at that time. Shall we assume that they are all comparable and that anything called vocabulary may be compared directly with anything else called vocabulary? As previously mentioned, the same problem exists with comprehension but is much more complex.

*Problems in the Testing-Teaching Situation*

The second critical area is the testing-teaching situation. Here teachers are faced with all the problems involving measurement of comprehension, and the materials of comprehension, and in addition the problem of matching the instructional materials to the measuring instruments.

*Confusion through Relationship to Intelligence*

Reading is frequently referred to as a thinking process. We tend to accept the increasing correlations between IQ and reading achievement as we advance through the grades as evidence of the increasing involvement of the higher thought processes as the program grows in comprehension emphasis. It is not strange that theories of reading comprehension should closely parallel theories of intelligence, and the issues in defining intelligence are far from resolved. The same difficulties which plague us in dealing with intelligence are present in our

515.

deliberations abouf reading comprehension. Spearman (4) was mistaken when he wrote in 1927 "Chaos can go no further." He then added, "Intelligence has become a mere vocal sound, a word with so many meanings that it finally has none." This statement could not be more appropriate if it had been intentionally directed toward reading comprehension.

*Problems in the Testing-Teaching Situation*

A second source of confusion in reading comprehension is that of labeling as a personal convenience. The choice of terms is not being criticized here, since the terms selected by authors of comprehension discussions are usually reasonable ones What is being questioned is the practice of personal labeling which forces the consumer to reconcile differences in perspective.

**Recommendations**

*First,* it is suggested that teachers and research consumers become independent of labels. The materials of measurement and development in reading comprehension should be related in terms of the tasks represented, without regard to nomenclature.

*Second,* it is suggested that comprehension be approached through operational definitions. To be thoroughly operational in description would be a significant advance over our present practice of personal reporting.

*Third,* it is suggested that an attempt be made to classify operationally reading comprehension. Labels could then be assigned to any combination of operations for descriptive convenience, but we would know with some exactness what was being described.

*Fourth,* it is suggested that the accumulated data of reading comprehension be operationally reevaluated. Efforts directed toward clarifying present research might resolve a number of inconsistencies, be productive of new insights, and suggest future directions for study.

Reading comprehension is complex and difficulties will not easily be resolved, but a classroom independence of labels, an operational approach to current research problems, and cooperative effort toward redefinition and reevaluation may help us to reduce ambiguity and to restore communication.

REFERENCES

1. Berg, Paul C., Taylor, Stanford E. and Frackenpohl, Helen. *Skimming and Scanning.* Huntington, New York: Educational Laboratories, Inc., 1962.
2. Kelley, V. H. "Techniques for Testing Word Meaning Knowledge," *Elementary English Review,* 9, 1932, pp. 102-105.
3. Spache, George D. and Berg, Paul C. *The Art of Efficient Reading.* New York: The Macmillan Company, 1955.
4. Spearman, C. *The Abilities of Man.* London: The Macmillan & Co., Ltd, 1927.
5. Yoakam, Gerald A. *Basal Reading Instruction.* New York: McGraw-Hill Book Company, Inc., 1955.

516.

166.

Vol. 10, 65

306.

## 10. Critical Reading and Listening

SARA W. LUNDSTEEN
University of California, Santa Barbara

THE EDUCATIONAL Policies Commission of the NEA states that the central purpose of American education is to teach children to think, in every area and in every level. Why? I should like to suggest two reasons: (1) Our way of life and government is predicated upon autonomous thinking of high quality from each individual. (2) Growth in thinking ability needs systematic help and the proper environment; growth does not necessarily occur automatically. Thinking is learned and therefore can be improved with guided practice.

But what has the importance of children's thinking to do with critical reading and critical listening? I suggest that the only time teachers can see these critical thinking abilities at work is in language contexts. Teachers cannot peer into their pupils' heads to see the critical thinking process at work. The receptive skills of listening and reading may serve the way to stimulate the critical thinking process and to provide an avenue for the materials of thinking—facts, concepts, memories and images. The child's thinking process both while listening and while reading is probably the same, involving his knowledge, abilities, and attitudes. But the listening avenue and the reading avenue are each influenced by differing elements, such as time, person, and context or "things." Teachers of reading should give attention to these similarities and differences, working toward mutual transfer, maximizing the advantages and minimizing the disadvantages.

For example, the time pressure in critical reading is usually much less than while listening critically. The reader can go back, review, while the listener must frequently absorb and evaluate the message at the rate it comes. The teacher can minimize the listening disadvantage by pointing out: (1) preparation for hearing the message, i.e., storing of knowledge and appropriate questions, cultivation of habits and attitudes of emotional control while listening, (2) freedom to request clarification when possible, (3) useful note taking or mental summarizing during any left over thinking space.

Moreover, there is generally a rise in concern for the influence of listening skill on reading skill. Recent factor analyses appear to show evidence of this contribution from listening to reading. One series of studies in particular is based on the theory that reading consists of a number of interacting components. This research emphasizes the importance of the listening factor in reading.[1]

I should like to suggest that listening skill is not a unitary factor any more than is reading, and that one of the compo-

[1] J. A. Holmes and Harry Singer. *The Substrata-Factor Theory: Substratafactor Differences Underlying Reading Ability in Known Groups.* United States Office of Education, Cooperative Research Project, 1961.

517.

nents of listening ability is critical listening.

### Definition

In the present research the term critical listening was defined as follows: Critical listening is the process of examining the spoken message in the light of objective related evidence, comparing the materials to some standard, or criteria, and then acting or concluding upon the judgment made. Thus, in this study the meaning of critical listening refers to a highly conscious judging process, aided by an attitude of questioning and suspended judgment.

### Purpose

Purposes of the present research most pertinent to this conference include not so much the major hypothesis of growth in critical listening through training, but instead the sub-questions of the heretofore uninvestigated relationship between critical listening, critical reading, and related variables at the elementary school level. In addition the sub-questions of lateral transfer from training in critical listening to reading and to critical reading are also included.

### Design

This research was designed using repeated measurements (pretest, two post-tests) on the experimental group and the control group with random assignment of volunteer groups. Analysis of variance and *t* tests were used to test the significance of the difference between the performance of the control group, following the usual English curriculum and the experimental group having 18 lessons in critical listening during a nine-week period. To ascertain lateral transfer from the training in critical listening to other in-school and out-of-school areas, experimental teachers and pupils were asked to respond anonomously to one-page check sheets.

### Sample

Twelve volunteer classes in the fifth and sixth grades of a Texas city were randomly assigned to experimental and control groups (N = 287). The sample was generally of middle to high socio-economic, with a sprinkling of low socio-economic level, and was above average academically. For the correlations, N = 263 and for the reports of lateral transfer N = 146 pupils, 6 teachers.

### The instruments

Reading ability was measured by the Stanford Achievement Test (Total Reading, Form N), general listening by an experimental test developed by Pratt.[2] Critical reading was measured by an experimental test developed by Hendrickson.[3]

Critical listening was measured by an experimental instrument developed by the present investigator. This test consisted of 79 items, approximately equally divided over three parts. The three parts were titled, detecting the speaker's purpose (to be funny, to give facts, to persuade), judging propaganda, and judging arguments. The pupils were given a standard to judge by for each of these tasks. In the last two parts, after analysis, pupils not only had to select a judgment of a selection, but also had to select a reason for the judgment. The test-retest reliability *r* for this measure was .72. The test had been sent to five judges (university professors and a curriculum consultant) for purposes of content validation. Moreover a factor analysis of the 16 variables within the test yielded four factors labeled (1) General Analysis and Inference, (2) Value Judgment Regarding Propaganda, (3) Factual Judgment of Arguments, and (4) Reasons for Fallacies in Arguments.

### Findings

The correlation between critical listening and critical reading was .52; general reading, .47; general listening, .64; California Test of Mental Maturity: Language, .43, Non-Language, .26. These correlational results suggest the possibility of an independent but interrelated ability or abilities of critical listening, positively related to but not congruent with other verbal and thinking abilities. It is interesting to note that the highest correlation with critical listening was found, not as had been expected, with critical reading, but with general listening. Perhaps this finding adds special importance to the distinguishing factors in the elements of person, time, and context mentioned earlier.

The evidence of lateral transfer from the lessons in critical listening to performance and attitudes toward reading and critical reading is as follows. Of the academic areas reading was found to have the most frequently reported area of transfer with a total of 477 instances of report out of a possible number of 1,102. In regard to anecdotal reports from teachers, one example must suffice. "The librarian told me that she overheard two of my pupils discussing books that they were using for a report. One girl said, 'Do you think that this book is giving us a fact or an opinion?' " A year later when the sample was retested additional anecdotal reports were collected of instances of transfer from the lessons to critical reading, such as in the reading of history and magazine advertisements.

I believe that a curriculum aimed toward greater generality of concepts in critical thinking with attention to likeness, differences and interrelationship of critical reading and listening may result in still greater mutual reinforcement than was found in this study.

[2]Lloyd Edward Pratt. "Experimental Evaluation of a Program for the Improvement of Listening in the Elementary School." Unpublished doctoral dissertation. Iowa City, Iowa: State University of Iowa, 1953.

[3]Dale Hendrickson. "Some Correlates in Critical Thinking of Fifth-Grade Children." Unpublished doctoral dissertation. Berkeley, California: University of California, 1960.

167.



study were the extensive *differences among programs of either type*. Few generalizations could be drawn. Therefore comparison of the *two types* of programs was limited to a very few areas.

The following list incorporates those generalizations possible:

(1) Some phonics programs were more similar to basal reading programs than they were to other phonics programs, and vice versa.

(2) Basal reading programs were more apt to teach discrimination of rhyming and alliteration prior to introduction of sound-letter relationships than were phonics materials.

(3) Consonant letter-sound relationships were more apt to be taught first than were vowel letter-sound relationships in all the programs studied. However, in many phonics books isolated letters and sounds are presented, whereas in basal reading series the sounds are usually presented within spoken words and the letters within printed words.

(4) Initial consonant substitution and syllabic division were the only techniques suggested for teaching by *every* basal reading series. Phonics programs teach most commonly (a) the finding of letters (in printed words) representing dictated sounds, (b) writing letters representing dictated sounds, and (c) pronouncing words by "sounding-out" their letters.

(5) The greatest agreement among basal reading series was on the structural skills and understandings. All suggested teaching inflectional endings, compound words, contractions, prefixes, roots, and root changes in derived forms. Phonics programs were completely agreed only on the teaching of prefixes and suffixes (but not on the same ones).

(6) Every basal reading series included a program for developing dictionary skills. No phonics program provided as many activities as any single basal reading series for dictionary skill development.



(7) The phonics programs suggested, in general, more letter-naming. They directed attention to more letters and to more specific sounds than did basal reading programs. The latter presented more total printed and spoken words for practice.

(8) In basal reading series, calling attention to a word's meaning is done by pointing out its use in context, or by providing an incomplete sentence into which it may be inserted. In phonics programs, the child is usually asked to say or write the word in a sentence.

### Summary

Differences exist in levels at which skills and understandings are introduced in basal programs, and in sequences of introduction and extent to which practice is suggested. The same differences are evident among phonics and manuals. Programs of either type are different in so many ways that the isolation of the differences in instruction which might be responsible for the differences in achievement seems nearly impossible.

Vol. 9, 64

## 6. Word Recognition Practice: Basal vs. Phonics Programs

GEORGE E. MASON

THE TEACHER'S manuals and workbooks for eight leading series of basal readers and seven well-known sets of phonics-teaching publications were studied in order to compare suggested practices. The level at which each understanding of phonics, structural analysis, or dictionary usage was first introduced, as well as the amount of practice suggested, was recorded. The information was then tabled or depicted in figures for comparisons. The original plan was to compare basal reading series, to compare phonics materials, and finally compare the two types.

### Findings

The differences in level of introduction and sequence of introduction of skills and understandings were more numerous than anticipated. The major findings of the

519.

168.



Vol.7, 62

## 2. The Role of Phonics in the First Grade Program

GEORGE E. MASON

In this discussion I will posit answers to three questions concerning the role of phonics in the first grade program: (1) How, or in what way, does the knowledge of phonics improve children's efficiency in word recognition? (2) When is phonics instruction most helpful for the child? (3) Who may be best aided through receiving phonics instruction?

### How Phonics Improve Word Recognition

A great deal of research has been directed at finding the factors which are most highly correlated with success in first-grade reading. The recent work of Durrell and others (1), has reinforced the earlier conclusion of research workers such as Gates (2), that knowledge of letter names and sounds correlates substantially with success in first grade reading. But why should it? Almy (3) found that children who were most interested in words and letters made better progress in first-grade reading. Which is the factor most important to reading success: interest in words and letters, knowing letter names, or knowing letter names and sounds?

Muehl (4) has recently shown that discrimination between similar words was facilitated by pretraining on the forms of the letters in those words. And Reynolds (5) has shown that auditory discrimination is predictive of success in word recognition.

Now the question has five alternatives. Is knowing letter names, knowing letter names and sounds, being interested in letters and words, knowing letter forms, or knowing specific sounds within spoken words, the factor most important to success in first grade reading?

The problem is complicated by interrelationships. If one can name all the letters on sight, he has certainly learned to discriminate between them. Interest in words and letters may have led some of the children in Almy's sample to this state of progress before Almy studied them. It also seems logical that knowing sounds of letters requires differentiating between letter forms, otherwise the sounds might not be associated with the correct letters. However, some alternatives may not be interrelated. Discriminating phonemes can have little influence on the reading progress of the child who sees no words or letters. Consequently, auditory discrimination ability does not necessarily involve knowing letter sounds or letter forms.

Durrell and Harrington (6), attempting to solve this dilemma as to which of these factors are most necessary for reading success, concluded that phonics skill had a higher relationship to reading achievement than did auditory or visual discrimination. However, visual discrimination scores correlated more highly with reading test scores than did phonics scores.

This then is the basis for my first tenet —that the basic contribution of phonics training to the first grade reading program is the skill in visual perception of letter forms which phonics training must provide. Murphy and Hochberg (7) have shown that the organizing factors in perception are the needs of the perceiver.

520.

Requiring children to use phonics in analyzing words forces them to perceive letters in left-to-right sequence, or to attend to the parts of words as they identify or recognize, and read, whole words.

## When to Teach Phonics

This factor of learner need also helps in the timing of instruction in phonics in the first grade. For from this point of view it is logical for phonic skills to be taught only when a definite need for them has been established. Since most children come to first grade expecting and wishing to learn to read, it seems appropriate to start them reading whole words as soon as they become ready. Gates and Boeker (8) found that when words were presented as wholes, the pupils differentiated among words primarily by the length. However, when the words were of the same length, they found some small detail, either a letter or part of a letter, which differentiated one word from others. Therefore we can deduce that letter discrimination is not really necessary until the learner meets word forms very similar in length or configuration, and that letter phonics instruction might conceivably be poorly learned when no need for it has been established through the meeting of similar word forms.

Muehl's earlier mentioned work (4) clearly indicates that the perceptual or discrimination skill needed is the one which is required by the new words to be taught—or, as we have pointed out, the ones meeting the needs which structure the learner's perception.

It now becomes apparent that the words to be taught are a vital consideration in determining the role of phonics in the first grade program. Words usually selected for teaching are those which are assumed (1) to have been previously spoken by nearly all the learners, (2) to have meaning for the learners, and (3) to therefore be among the most easily learned of all possible words. Cofer and Shevitz (9) have pointed out that the number of associations or meanings given to a word are related to its frequency in our language. Howes and Solomon (10) found that frequency of use is highly related to ease of recognition. It therefore seems probable that the most frequently used words will be the most easily learned and should be the first introduced.

But there is disagreement here. Bloomfield and Barnhart (11) recommend teaching initially only those words which are phonetically consistent. They would maintain a one-to-one ratio of sounds to letters in the first group of words taught. If children are to be taught by a strictly phonic method of recognizing words, this would seem advisable. However, most children can learn rapidly and effectively without formal phonics instruction. And studies have established that many children require more than phonic skills in order to identify new words and to recognize them. Gates and Russell (12) concluded, "A program containing little or no phonetic or word analysis activities in the first year is not so good as the informal program, but is at least as good as the one containing large amounts of formal phonetic work." Sexton and Herron (13) demonstrated the lack of positive effect in teaching phonics to children before grade two or age 7½. Speech investigators have found that many children are unable to discriminate between some of the consonants before 7½ years. This is why most popular first grade reading programs as developed in basal readers de-emphasize phonics until grades two and three.

Why, then, do programs emphasizing drills on phonetic analysis, sounding of letters and words in isolation, and synthetic blending of sounds into words yield reading test results at the end of grade one which are as good or better than the results obtained through a look and say approach.

One possibility is that many words are learned as sight words, even in very rigid phonics systems, because of the repetitive drill. Another can be inferred from the work of Goins (14)—that is, some children may perceive the parts but keep the whole word in mind regardless of the instructional method used. A third possibility is that the primary level measuring instruments test mainly word recognition. Any program which has word recognition as its only goal should be able to meet that goal at least as well as programs aimed at a variety of goals, especially if the same amount of time is allocated for teaching.

But this is not always true. Many phonics programs require much more time to be spent on instruction and drill than do the common basal reader programs.

## Who Is Helped Most by Phonics Training

When the learning of sight words becomes difficult because of their similarity to familiar words, many children develop phonics generalizations on their own initiative before the teacher leads the class group to draw these. Hunt (15) found through his research that more intelligent pupils made more use of word analysis techniques than did the less intelligent. However, Meek (16), much earlier, found that young children mastered words with few errors if clues were pointed out, but that practice without guidance yielded little improvement. Even though intelligent children may learn phonic generalizations independently, it is probable that most children need guidance in their formulation. But, as Agnew (17) pointed out, too much phonic training in grade one can be harmful.

## The Role of Phonics in the First Grade Program

As a result of the foregoing discussion, certain conclusions appear valid. Phonics instruction is necessary for some children at the time when phonic generalizations can help differentiate between similar word forms. However, many children form phonics generalizations without instruction. Phonics generalizations serve as guides to the perception of unfamiliar and unknown words. The nature of the word to be learned determines the phonic generalizations which need to be learned. The role of phonics in the first grade program is that of catalyst or facilitator of the larger job of developing the ability to recognize a large stock of words immediately at sight. When phonics instruction becomes the whole first grade program, it may not fulfill its true role, for the recognition of words may be incomplete and without meaning, or word recognition may be slow rather than immediate.

### REFERENCES


1. Durrell, Donald D., "Success in First Grade Reading," *Journal of Education*, 140, pp. 1-6.
2. Gates, A. I. *The Psychology of Reading and Spelling. Teachers College Contributions to Education, No. 129.* Teachers College, Columbia University, 1922.
3. Almy, Millie. *Children's Experiences Prior to First Grade and Success in Beginning Reading.* Teachers College, Columbia University, 1949.
4. Muehl, Siegmar, "The Effects of Visual Discrimination Pretraining with Word and Letter Stimuli on Learning to Read a Word List in Kindergarten," *Journal of Educational Psychology*, 52, pp. 215-221, #4, 1961.
5. Reynolds, Maynard C., "A Study of the Relationships Between Auditory Characteristics and Specific Silent Reading Abilities," *Journal of Educational Research*, 46, pp. 439-449.
6. Harrington, Sister Mary J., and Durrell, Donald D., "Mental Maturity Versus Perceptual Abilities in Primary Reading," *Journal of Educational Psychology*, 46, pp. 375-380.
7. Murphy, G., and Hochberg, J., "Perceptual Development: Some Tentative Hypotheses," *Psychological Review*, 58, pp. 332-49.
8. Gates, A. I., and Boeker, E., "A Study of Initial Stages in Reading by Pre-School Children," *Teachers College Record*, November, 1923.
9. Cofer, C. N., and Shevitz, R., "Word-Association as a Function of Word Frequency." *The American Journal of Psychology*, 65, pp. 75-79.
10. Howes, D. H., and Solomon, R. L., "Visual Duration Thresholds as a Function of Word Probability," *Journal of Experimental Psychology*, 41, pp. 401-410.
11. Bloomfield, L., and Barnhart, C. L., *Let's Read: A Linguistic Approach*, Detroit: Wayne State University Press, 1961.
12. Gates, A. I., and Russell, D. H., "Types of Materials, Vocabulary Burden, Word Analysis, and Other Factors in Beginning Reading," *Elementary School Journal*, 39, pp. 27-35, 119-128.
13. Sexton, E. K., and Herron, J. S., "The Newark Phonics Experiment," *Elementary School Journal*, 23, pp. 451-452.
14. Goins, Jean T. *Visual Perceptual Abilities and Early Reading Progress. Supplementary Educational Monographs, No. 87.* University of Chicago Press, 1958.
15. Hunt, Jacob T., "The Relation Among Vocabulary, Structural Analysis, and Reading," *Journal of Educational Psychology*, 44, pp. 193-202.
16. Meek, Lois H. *A Study of Learning and Retention in Young Children. Teachers College Contributions to Education, No. 164.* Teachers College, Columbia University, 1925.
17. Agnew, Donald C. *The Effect of Varied Amounts of Phonetic Training in Primary Reading. Duke University Research Studies in Education No. 5,* Duke University Press, 1939.


522.

169.

Vol. 9, 66

310.

# 7. The Development and Validation of the Standard Reading Inventory for the Individual Appraisal of Reading Performance in Grades One Through Six

ROBERT A. MCCRACKEN

THE PURPOSE of this research was to develop a valid and reliable individual reading test for measuring the reading achievement of elementary school children.

## Description of the Standard Reading Inventory

The test is named the Standard Reading Inventory. The Standard Reading Inventory provides measures of a child's independent reading level, his instructional reading levels, and his frustration level in reading. The reading levels are given as basal reading book levels. There are two equivalent forms.

a. oral speed
b. silent speed
c. oral and silent speed compared

## Three Reading Levels Measured by the S. R. I.[1]

The independent reading level is the highest book level which a child has mastered; he is independent of instructional needs. This has been called the *homework level* of reading, the level at which a child can independently read for information and pleasure.

The instructional reading level is the book level (usually levels) from which a child needs instruction and from which a child benefits by having instruction. The instructional maximum is the highest book level at which the child can profit from instruction and the instructional minimum is the lowest book level at which the child exhibits a need for instruction.

[1]The standards used in the *Standard Reading Inventory* are based upon the criteria recommended by Emmett Betts in *Foundations of Reading Instruction*, American Book Company, 1946. This is the earliest published definitive list of criteria for determining independent, instructional, and frustration levels of reading which the writer has found. These standards have been quoted or paraphrased in many professional reading texts since that time.

523.

Frustration reading level is the lowest book level at which a child manifests any symptom of frustration. Frustration level means that the book level is so difficult that a child cannot learn to read from it.

## Evaluating the Child's Reading Levels

The child's reading levels are evaluated by the use of a scoring sheet (see Figure 1 for a partial reproduction). All numbers on the general scoring sheet are raw scores.

A child must rate as independent in all sub-tests at a given book level in both oral and silent reading to be rated as independent.

A single rating under frustration on one sub-test makes it mandatory that the level be rated as frustration level. A simultaneous weakness in two or more of the four areas measured (recognition vocabulary, oral errors, comprehension, speed) at a single book level or a persistent weakness in one area at consecutive grade levels is rated as frustration. Weakness is defined as a score falling into the questionable side of the instructional level. The total area, not just one of the sub-tests of the area, must rate as weak.

The instructional level or levels fall between the independent levels and the frustration level. If a child scores better in a sub-test when reading at a higher book level than at a lower book level, the lower book level is ignored in the evaluation, and the higher level accepted as valid for both levels. For example, a recall comprehension score of 8 after silent reading at the 4th reader level and a comprehension score of 9 after silent reading at the 5th reader level should both be considered as rating independent level.

Figure 1

GENERAL SCORING SHEET — STANDARD READING INVENTORY

| | | frustration | instructional: questionable | instructional: definite | instructional: independent |
|---|---|---|---|---|---|
| PRE-PRIMER | VOCABULARY context | | 8 or less | 9 — 21 | 22 - 23 - 24 |
| | isolation | | 5 or less | 6 — 13 | 14 - 15 |
| | ERRORS word recognition | 7 or more | 6 5 4 | 3 2 | 1 - 0 |
| | total | 11 or more | 10 to 5 | 4 3 2 | 1 - 0 |
| | COMPREHENSION oral | 0 or 1 | 2 | 3 4 | 5 |
| | SPEED oral (seconds) | | 60 or more | 59 — 48 | 47 or less |
| PRIMER I-I | VOCABULARY context | | 5 or less | 6 7 8 | 9 - 10 |
| | isolation | | 11 or less | 12 — 22 | 23 - 24 - 25 |
| | ERRORS word recognition | 7 or more | 6 5 4 | 3 2 | 1 - 0 |
| | total | 7 or more | 6 5 | 4 3 | 2 - 1 - 0 |
| | COMPREHENSION oral recall | 0 to 5 | 6 | 7 8 | 9 - 10 |
| | silent recall | 0 to 5 | 6 | 7 8 | 9 - 10 |
| | total interpretation | | 0 1 2 | 3 4 | 5 - 6 |
| | SPEED oral (seconds) | | 65 or more | 64 — 49 | 48 or less |
| | silent (seconds) | | 65 or more | 64 — 49 | 48 or less |

## Validity

### *Content Validity*

The content of the Standard Reading Inventory is based upon three basal reading series, Allyn and Bacon, Inc.,[2] Ginn and Company,[3] and Scott-Foresman and Company.[4]

Content validity was obtained by:

1. Vocabulary control—
   a. When possible the words used for the word lists and the vocabulary in context are words introduced in all three basal reading series at the same level.
   b. Except for story titles no words are used in the stories for primer through 3-2 levels which have not been introduced in two of the three basal reading series at or before the level of the story. The story titles are pronounced for the child before he reads.
2. Sentence length, content, and general style are based upon the three basal readers.

[2]William D. Sheldon and others. *The Sheldon Basic Readers, Allyn and Bacon, Inc.*, 1957-58.
[3]David Russell and others, *The Ginn Basic Readers*, Ginn and Company, 1960-61.
[4]William S. Gray and others, *Curriculum Foundation Series*, Scott-Foresman and Company, 1948 and 1952.

524.

3. The Spache Readability Formula[5] was used to analyze the basal readers and to act as a guide in writing the stories for primer through 3-2 levels.
4. The Dale-Chall Formula for Predicting Readability[6] was used to act as a guide in writing the stories for levels four through seven.

This content validity was corroborated by testing 664 children in grades 1-6 using the stories or the word lists. The number of oral reading errors each pupil made as he read each story was used as the criterion of story difficulty. The number of words known in pronouncing the words on a word list was used as the criterion of word list difficulty. It was assumed that a child would make more oral reading errors in reading a fifth reader story than in reading a fourth reader story, for example. It was assumed that a child would know more words on the 3-2 reader list than he would on the fourth reader list. It was assumed that a child would make the same number of oral reading errors when reading two fourth reader stories or would know the same number of words on each list when reading two word lists at the 3-2 level.

The results were tabulated and compared. The results comparing stories or word lists of the same book level were expected not to differ significantly. The results comparing stories or word lists of succeeding levels of difficulty were expected to differ significantly. A critical ratio test for mean differences between two measures of the same individual was used.[7]

The 0.01 level of significance ($p < 0.01$) was considered as critical.

The preliminary stories were read individually in sets by groups of 12 to 24 children. The order in which the stories were read was determined by randomly assigning the stories to sequence-blocks. Sequence-blocks had been determined so that each story was read first, second, third, etc., an equal number of times and so that each story was preceded and followed by each other story an equal number of times. The validation testing began at the pre-primer level and preceded upward one grade level at a time.

For example, eighteen children read six stories at the fourth reader level and one story already validated at the 3-2 reader level. The number of oral reading errors made by each child was compared for each story. Twenty-one critical ratio comparisons were made in this example. The four fourth reader stories which seemed the most alike were selected for inclusion in the S. R. I. provided they were significantly harder than the 3-2 level story. Oral reading times were compared in making the selection if more than four of the stories seemed equivalent. The fourth reader story on which the children had made the most oral reading errors was administered with the fifth reader story set.

The level of significance for the stories and word lists included in the S. R. I. corroborated the content validity. The least desirable level of significance found in comparing stories or word lists at the same book level was 0.12. Most of the levels of significance were 0.25 or better. All of the levels of significance exceeded 0.01 when comparing materials on succeeding levels of difficulty, and most were at or beyond the 0.0001 level. This indicates that the possibility of an alpha or beta type error was virtually eliminated.

Further corroboration of the content validity was secured by expert ratings. Thirty experts in reading were asked to evaluate subjectively the basal book level of each story. Form A was sent to fifteen experts and form B was sent to fifteen other experts. Replies were received from twenty-five experts. Twelve rated form A, eleven rated form B, and two declined to participate.

Rank correlations were computed using the formula[8]

$$R = 1 - \frac{6Ed^2}{N(N^2-1)}$$

R for form A experts' ratings and S. R. I. book levels was 0.99, and for form B was

[5]George Spache, *Good Reading for Poor Readers*, The Garrard Press Publishers, 1958 and 1961.

[6]Edgar Dale and Jeanne Chall, "A formula for predicting readability," *Educational Research Bulletin*, 27:11-20, 28, 37-54, Jan. 21 and Feb. 18, 1948.

[7]Helen M. Walker, *Elementary Statistical Methods*, Henry Holt and Company, Inc., 1943. pp. 293. Quinn McNemar, *Psychological Statistics*, John Wiley and Sons, Inc., 1949. pp. 225-226.

The general formula is: $CR = \frac{MDx - MDy}{SMDx - SMDy}$

[8]Helen M. Walker, *Elementary Statistical Methods*, Henry Holt and Company, 1943, pp. 75-78.

0.99. In the experts' ratings there tended to be a range of about four book levels for each story, except at the pre-primer level which was rated as pre-primer in twenty-one of the twenty-three ratings.

**Reliability**

Reliability was demonstrated by having two examiners administer alternate forms of the Standard Reading Inventory to 60 elementary school children, 30 boys and 30 girls, divided equally among grades 1 through 6. The subjects were selected randomly from classes within the elementary schools of the Fulton (New York) Consolidated Schools. Five boys and five girls were tested at each grade level. Fifteen boys and fifteen girls had Form A administered to them first and Form B second, and conversely. Five subjects at each grade level had Form A administered first and Form B second, and conversely. No more than five children were chosen from any one class except in first grade. The first test given to a child was administered by one examiner and the second test was administered by the other examiner. Each examiner administered an equal number of tests first and second and each administered an equal number of Form A and Form B. The children were tested with one form during one week and with the second form the following week, except when absence made this impossible. The greatest time lapse between the administration of Form A and Form B for any one child was two weeks.

The two forms were administered independently by the examiners. Each examiner knew only that the test being administered was the first or second testing. Twelve Pearson product-moment correlations were computed using the total results. See tables I & II. The highest correlation was 0.99, the lowest 0.68 and the median 0.91. All twelve correlations are significantly different from zero ($p < .001$). Seventy-eight correlations were computed for the subtest scores. See table III.* Sixty of these are significantly different from zero at the .01 level ($p < 0.01$), six were significantly different from zero at the 0.05 level of confidence ($p < 0.05$), and twelve are not significantly different from zero ($p > 0.05$). The median subtest correlation was 0.71. None of the correlations was corrected for attenuation.

*Table III appears on page 314.

TABLE I

CORRELATIONS BETWEEN FORM A AND FORM B READING LEVELS FOR THE S.R.I. FOR 60 CHILDREN IN GRADES 1-6

| Reading level | r* |
|---|---|
| Frustration | 0.91 |
| Instructional Maximum | 0.91 |
| Instructional Minimum | 0.91 |
| Independent | 0.86 |

*All correlations significantly different from zero ($p \leqq 0.001$).

TABLE II

CORRELATIONS BETWEEN THE TOTAL RAW SCORE RESULTS ON FORMS A AND B OF THE S.R.I. FOR EIGHT AREAS OF READING ACHIEVEMENT FOR CHILDREN IN GRADES 1-6

| Area of achievement | r* | N |
|---|---|---|
| Oral speed | 0.95 | 60 |
| Oral comprehension | 0.97 | 60 |
| Total oral errors | 0.80 | 60 |
| Word recognition errors | 0.68 | 60 |
| Silent speed | 0.91 | 49 |
| Silent comprehension | 0.84 | 49 |
| Vocabulary in isolation | 0.99 | 60 |
| Vocabulary in context | 0.98 | 56 |

*All correlations significantly different from zero ($p \leqq 0.001$).

526.

170.



## 3. A Research Pitfall: Jumping to Conclusions

HELEN A. MURPHY

It seems to me that we have a more serious problem than the one suggested by the topic—"A Research Pitfall: Jumping to Conclusions," and that is the application of research findings into practice in classrooms. After several years of directing research, I am concerned that many important findings have not been translated into classroom practice, and sometimes wish some people might have courage to "jump" just a bit in the light of research findings.

A research person does not stop with a single study in a single community, but rather starts on a project with a goal in mind, and after one attempt will accept the findings in this situation and plan the next step in the light of this evidence. I would like to outline briefly various approaches we have used in attempting to reach the goal—"success in beginning reading for all children."

Many studies had been done which showed various abilities are related to success in beginning reading, but there appeared to be little evidence of what skills a child may have when he enters school, and how such skills may be related to school success. In September of 1953 (1) we surveyed approximately one thousand children from ten different communities, including large cities and small towns, representing low, middle and upper socio-economic levels, to discover the skills these children have when they entered grade one. We studied the pre-school experiences as reported through parent interviews, and the adjustment of the children to the school situation in grade one as evaluated by the classroom teachers.

The test battery included tests of knowledge as letter names and sounds, visual memory for words and motor skills involving folding and cutting paper, drawing a circle and copying a sentence in manuscript writing. The checklist used in the parent interviews was concerned with types of active and quiet play the child had participated in, the toys he had used, his experiences involving books, stories, music and writing. The teacher's observation chart was divided into seven categories: physical maturity, attention in group activities, social adjustment, emotional adjustment to school, motor control, verbal fluency and speech.

All of the data, with the exception of reading achievement, parent interviews and teacher observations, were collected by October 12. Reading tests were administered in November and in March and the teachers' observations continued for the first six weeks of school. In addition to the analysis of the test scores for the total population, two hundred children were selected for special study. One hundred who were high achievers in reading were matched with one hundred children of like mental age who were low achievers in reading. The high achievers were significantly better on all the tests in September: writing letters from dictation, identification of letters from dictation and from flash cards, identification of sounds of letters and visual memory of words. A measure of reading achievement in March showed that the children who knew the letters when they came to school in September were still superior in reading achievement to the children who did not know the letters.

On the basis of these results, a series of exercises (2) were developed to teach the recognition of all of the letters of the alphabet, capital and lower case, before starting the regular reading program. These lessons were taught the first two weeks of school to approximately 150 children in six classrooms, three in Florida and three in Massachusetts. Another 150 children in the same communities were not taught the lessons and were the control group. Two forms of the Detroit Word Recognition Test were used to measure reading achievement in March and May. The children who had been taught the letters were statistically superior to the children in the control group in reading achievement. In this study no attempt was made to teach the letters to the children who had not mastered them in the two week period.

527.

The following year children in the first grade in two communities were taught the letter names. In this study (3) additional lessons were built and the teaching continued until all of the children had mastered the twenty-six letters. It appeared that the letter names could be taught successfully, and that children who knew the letters acquired a sight vocabulary more easily than the children who did not know the letter names.

With this evidence, an extensive study involving 2,000 first grade children in four communities was undertaken. This continued a full school year with testing in September, November, February and June. The results of this study, "Success in First Grade Reading," have been published. In addition to the analysis of letter knowledge in relation to success in reading, there was an experimental methods study in one community in which the letter names and sounds were taught to one half of the population and the readiness program of the basal reading program was used with the other children. The children who had had instruction in letter names and sounds were superior.

The next approach to the problem was a group master's study (5) in which 300 children, the first grade population of a community, were studied in January, 1959. A careful analysis of all existing readiness workbooks was made. The five main areas of practice revealed in this analysis were: (1) Auditory Discrimination, (2) Language Development, (3) Motor Skills, (4) Visual Discrimination, and (5) Word Recognition.

There were subdivisions under each, and tests were constructed to measure the abilities in all subdivisions on which emphasis had been placed in the published workbooks. Those included in Auditory were: rhyming, familiar sounds, and initial consonants. Included under Language, were: telling stories from pictures, picture sequence, anticipation of conclusions from a picture, interpreting one picture, and classification of objects. The Motor Skills were: cutting and folding, coloring, reproducing a pattern, tracing pictures, and maze. The Visual Tests were: matching words, matching pictures, matching numbers, selecting unlike objects, and matching letters.

The test items were similar to those in the workbooks so that the children would know the procedures, with some items easy enough for all and some difficult ones to provide a ceiling one step above the place included in the readiness workbooks. The reliabilities for these tests were .93, .90, .81 and .72 for Language, Auditory, Visual and Motor respectively. Two people working independently scored a random sampling of the motor tests to establish the reliability of the scoring. This correlation was .92.

In addition to these measures, the January tests for the First Grade Success study, group and individual, were administered. These group tests included:

Identifying lower case letters shown
Identifying words shown
Identifying capitals named
Identifying lower case letters named
Hearing sounds in words, and
Writing letters dictated

The individual battery included:

Naming the 26 letters of the alphabet, capital and lower case
Giving the sound of 24 letters and 16 consonant blends
Applied phonics, involving initial and final consonants, and
Oral Reading

The oral reading test inventoried the preprimer and primer vocabulary of the Scott, Foresman series as that was the basal system being used in the town. The reliability of this test, using the Kuder-Richardson formula, was .97.

The correlations of Reading Achievement and the tests based on the workbook items were .47, .45, .38, .36 and .17 for Auditory (word sounds), Visual, Language, Auditory (familiar sounds), and Motor, respectively.

The correlations of Reading Achievement and the Boston University Tests of Knowledge of Letters were .63, .61, and .55, for Individual Sounds of Letters and Blends, Hearing Sounds in Words, and Identifying Words Shown, respectively.

The correlation of Reading Achievement and Intelligence was .45, and of Reading Achievement and Chronological Age, .04. The distributions of all tests showed that the abilities of the group were measured adequately. A low correlation was not because of a skewed distribution.



Still another approach has been made by providing an in-service program for first grade teachers. In January of 1961, all of the first grade children in a community were tested individually. A program was provided to teach the letter names and sounds to children who did not know them. Twelve people worked in the classrooms every morning for eight weeks, and one was hired to continue the program in September. In January of this year the children in the first grades were again tested. Ten of the thirteen first grade teachers were the same for the two years. In 1961, 155 children were below the norms on the individual test. In 1962, 45 children were below. In 1961, 37 children were reading at first grade level; in 1962, 118 were. In 1961, ten children were reading above grade one; in 1962, 48 children were reading above grade one.

Over the years, evidence has shown that knowledge of letter names and sounds contributes to a child's success in learning to read, and also that these abilities can be taught. These few studies represent the summation of thirty years of research in which continued efforts were made to discover factors which are important in the learning process.

REFERENCES

1. Boynton, Katherine F., et al, "Difference in Reading Backgrounds Brought to First Grade," Unpublished Master's Thesis, Boston University, 1954.
2. Hudak, Elizabeth, et al, "The Effect of Knowledge of Letter Names on Beginning Reading," Unpublished Master's Thesis, Boston University, 1955.
3. Zajac, Mary, et al, "An Experiment to Determine the Effect of Knowledge of Letter Names on Success in Beginning Reading," Unpublished Master's Thesis, Boston University, 1958.
4. Durrell, Donald D., et al, "Success in First Grade Reading," *Journal of Education*, Vol. 140, February, 1958.
5. Allen, Ruth I., et al, "The Relationship of Readiness Factors to January First Grade Reading Achievement," Unpublished Master's Thesis, Boston University, 1959.

528.

171.

# BUILDING COMPREHENSION ABILITIES

## A. PRIMARY LEVEL

### 1. Reading as a Thinking Process

EDWARD PRATT
Southern Methodist University

A DISCUSSION OF READING as a thinking process is subject to the danger, on the one hand, of being developed in such a way that comprehension of printed matter seems an easy, facile, almost palpable accomplishment or, on the other hand, it may be developed as an extremely complicated, abstruse, or even esoteric ability. Perhaps a middle course can be attained avoiding the pitfalls of both oversimplification and the creation of an enigma.

#### Reading and Thinking

The words *read* and *think* are to be found in the speaking vocabularies of pre-school children, and they are encountered in the reading materials attempted by most children in the first two years of school. Both words, however, relate to processes which are difficult to describe. Identifying behavior as probably being reading rather than running, talking, or laughing is not difficult; but one may look at the page of a book without reading. According to Bond and Tinker, "A generation ago reading was considered to be a relatively simple process. Now it is recognized by both authorities in reading and by experienced teachers to be a very complex process."[1] Since *thinking* is also a covert act, we can only infer that it has occurred on the basis of overt behavior. Defining thinking as a process presents some difficulty. Klausmeier and Goodwin say, "Thinking has been an interest of mankind for a long time, in part because he can engage in the process but cannot define it. In this regard thinking is like learning. In fact thinking may be considered a mental activity that is essential to learning most outcomes. Despite the apparent simplicity, thinking is as complex as learning itself."[2]

It seems that consideration of reading as a thinking process, if treated fully, is an appropriate subject for an entire book, or at least a major section of one. To bring the topic within the scope of this paper, development of a perspective for the relationship of thinking to reading *above the level of sentences and paragraphs* will be stressed. This means that the area of concern will be *how the thinking process is involved when the primary-grade child tries to construct the meaning for major sections or for the entirety of a story or an article.*

#### Lexical and Syntactical Levels

Before considering this major issue, it is necessary to recognize the fact that meaning and thought relevant to the whole story or article are most certainly affected by meaning at the word or lexical level and by meaning at the syntactical and paragraph levels. The reader will need to have attained a level of linguistic sophistication which insures that he will know what is referred to by the word symbols that are used and that he will functionally respond to grammatical relationships inherent in the writing. Writers of materials for primary-grade children in the United States usually attempt to exercise control over these linguistic elements to the extent that the child for whom English is the vernacular and who has developed moderate speaking and listening ability should have the requisite linguistic facility. Obviously, the degree to which this assumpton is correct varies with authors and with children who attempt the reading. We should remem-

[1]Guy L. Bond and Miles A. Tinker. *Reading Difficulties: Their Diagnosis and Correction.* New York: Appleton-Century-Crofts, 1957, p. 18.

[2]Herbert J. Klausmeier and William Goodwin. *Learning and Human Abilities.* New York: Harper and Row, 1966, p. 257.



529.

ber, however, that just because a child knows what a symbol stands for and because he is able to cope with the grammatical relationships does not imply that appropriate mental activity is in progress when his eyes are focused on the page of a book. For the purposes of this presentation, however, let us suppose that word meaning, functional grammar, and sentence and paragraph meaning are not crucial problems for the kind of reading material to be experienced by children in the primary grades.

## Patterns in Thought

Thought is limited by one's ability to combine, transpose, augment, and diminish ideas. This suggests that whether one is using the thought process for interpretation or for expression he puts ideas together and establishes an organization that is meaningful for him, he embellishes these ideas from his background of knowledge, and he reorganizes them to combine the compounded and augmented ideas so that they come to represent what he understands regarding the subject which stimulated thought.

In making application of thought in reading we might observe that the thoughtful reader *conceives* ideas inherent in the author's presentation, gains *insight* by bringing his own experience into interaction with what he believes the author is suggesting, and achieves *understanding* by extracting what to him is the essence of the combination of the author's expression and his own experience. The thought process might be considered a progression from conception to insight to understanding.

If thought is to occur in association with reading, the child must do more than name words and apply appropriate expressional groupings. Thinking must be stimulated by concern on the part of the reader. This concern on the part of the reader is commonly called *purpose* in most materials related to reading instruction. Thought is stimulated by the child's own purpose, not by an artificial one imposed by the teacher. The teacher may identify a purpose and lead him to accept it, but until the child makes it his own purpose, it will not be the stimulus that triggers thought.

## Patterns in Reading Materials

Any consideration of children's purposes for reading should involve a sharp distinction between narrative and expository writing. Subject matter or study type materials require a different pattern of thought than that used for narrative. Narrative has a distinctive organizational pattern involving a theme expressed through setting, plot, and characters. The purpose for reading this type of writing is to enjoy the story. Exposition also has a distinctive organizational pattern involving the development of an idea through explanation and development of major related ideas which are in turn developed through supporting ideas and details. The purpose for reading this type of writing is to extend one's knowledge of the particular topic. To fail to help the child establish a knowledge of the inherent differences in these basic types of reading material, to treat a story as if it were a topic for study, is confusing and limits the effectiveness of the child's attempts to make reading a thought process.

How is the thinking process involved when the child attempts to read a story? We should identify the thought process in this instance as being an example of convergent thinking in that there is a pattern or structure involved and there is an appropriate interpretation based on limitations inherent in the linguistic symbolization used by the author. The pattern which the author follows in relating the story, and which the reader should use to arrive at the appropriate interpretation, is the one which is common to narrative writing.

The thinking process of the reader should be so ordered that he responds to the author's presentation and combines ideas gained with his own related ideas to arrive at an understanding of (1) the setting, (2) the plot structure (including sequence of events and climax), (3) the characterization, and (4) the theme. As the reader matures in his experience with narrative, these enumerated elements of the pattern should be acquired with less attention to specific items and more attention on the integrated story pattern. In the early stages of reading development, however, it is important that the novice reader devote conscious effort to identify-

ing ideas associated with story elements. The strength of some stories will be in the characterization, for some it will be in the plot, and for others the setting may be of prime importance. All stories, however, will present their themes through some arrangement and weighting of these elements.

Thoughts about the setting ought to establish the time, place, and conditions for the action of the story. Some indication of the setting should be conceived at the outset of the reading, but clarification of these ideas should be achieved as the reading progresses. The initial conception should also be enhanced by what the reader knows about similar settings. The plot or sequence of events will have to be conceived as taking place in this setting, and the characters through whom the plot is developed will need to be conceived in relation to both plot and setting. Thoughts about the plot should be carried along during the reading and used to clarify character motives and, ultimately, the theme. As a part of thought concerning plot structure the reader should identify events as being supportive of broader elements of the plot such as conflict, suspense, and climax. Usually the focal point for organizing thought about a story is the characterization. It is the characters who give life and significance to the theme of the story by performing the action within the story setting. Ideas about the traits of characters will be acquired as a developmental process during the reading. The actions of the characters, pictorial or verbal descriptions of them, and what the author has them say should contribute to the reader's conception of them. Relation of ideas concerning plot and setting to characterization should provide ideas about character motives and probable behavior as the story develops. Integration of ideas concerning setting, plot, and characterization should suggest the theme which the author has developed. If the reader's conception of other story elements is faulty, the theme may be difficult to identify and appreciate.

Instructional procedures can hinder the reader rather than help him in his effort to think through the organizational pattern of the story as he reads. Overemphasis on identification of sequential events in a story is detrimental. Some instructional materials suggest long lists of events to be identified by children for a comparatively short story. Another procedure which causes difficulty is the discussion of initial segments of the story before the reader has an opportunity to establish ideas about plot and characterization. Use of instructional materials which contain stories that are very weak in characterization also limits full development of thought. Even primary grade children should use materials which help them to see that there is more to a story than the action that takes place.

## Stimulation of Thought

As stated earlier, the basic purpose for reading any story is to enjoy it; without this purpose the reading is perfunctory. Enjoyment comes as the story unfolds. Delight in the development of a humorous situation, the excitement of events that build to a climax, and empathy that is developed for characters, are some of the ways in which satisfaction with a story is achieved. Enjoyment is apt to be greatest when we are able to complete the reading of the story without interruption. It may not be possible to read lengthy stories at one sitting. The desire for closure, however, is evidenced by the adult who does not want to put a good book down although he may have other pressing matters to which he should give his attention. It is also evidenced by the child who continues reading beyond the place where the teacher asked him to stop, even though he may have a strong desire to conform to her wishes. Stimulation which comes from purpose is a precious thing which we should try to foster to the fullest—adequate thinking is impossible without it.

Despite the importance of purpose to thinking, some of our instructional procedures thwart purpose rather than facilitate it. One instructional procedure which interferes with the enjoyment of a story is the extended introduction which is ostensibly designed to create interest. It is the author's job to write an interesting story, not the job of the teacher to create interest in a story that is not inherently enjoyable. Extended introductions are apt

531.

also to disclose story elements to such an extent that little is left except to read to answer questions posed by the teacher. From the child's point of view, such reading leaves much to be desired. It is usually tolerated rather than enjoyed. Since stories involve a segment of real or imagined life, the child will usually be able to project. Living the story as it develops is basic to its enjoyment.

A second instructional procedure which thwarts enjoyment is the fragmentation of a story. Story development that occurs on one or two pages is usually meagre. If the child begins to enjoy the story but is required to stop his reading for discussion and oral reading of a page or two, his zest for the reading is dampened to some degree. Reading only bits of stories at a time also mitigates against the early development of ability to read trade books, because the child is uncertain of his ability to read lengthy stories.

Criticism of story introductions and story sectioning should not be construed as a plea for abolishment of these procedures. They should be employed where they are needed to develop reading skills, but they should be used only to the extent necessary for a given child or group of children. The caution suggested here is that we realize that greatest enjoyment comes from savoring the story as it progresses and completing it, if possible, without interruption.

Instruction in the reading of expository materials is chiefly a problem for the intermediate grades. Listening activities in the primary grades, however, should include exposure to exposition; and identification of main ideas supporting ideas, and details should be initiated. Where this is done, the material should be related to on-going study so that its purpose is to expand knowledge.

**Summary**

Considered on the level of meaning for an entire story or article, thought is concerned with developing a synthesis according to the organizational pattern common to the type of writing in question. Primary grade children will be chiefly concerned with narrative which involves setting, plot, and characterization as elements to be synthesized into a pattern which will express a theme. The thought required for developing this synthesis will be limited by the reader's ability to combine his conception of an author's ideas with his own related information and arrive at an understanding abstracted from both. The thought process is used in many settings; reading is one of them.

532.

172.

Vol. 8, 63

## 3. Phonics Instruction—When? What? For Whom?

224. H. Alan Robinson

A complexity involved in determining "When should phonics instruction begin?" is in determining "What is phonics instruction?" Most of the studies do not describe programs of instruction in detail. They are vague about specific teaching procedures and content. Terms are used without suitable definition. Formal phonics, analytical phonics, synthetic phonics,



incidental phonics, and phonic readiness are often used with the apparent expectation that the reader will understand without explanation. Hence, phonics instruction has become a term that often means different things to different people.

Phonics instruction, in this writer's opinion, is direct, planned teaching aimed at helping a pupil analyze printed or written words to determine their pronunciations. As Gray has indicated, the child uses visual clues ". . . as aids in determining consonant and vowel sounds, syllabic divisions, and accented syllables." Pupils must be helped to refine visual and auditory discrimination, ". . . to associate consonant and vowel sounds with letters of the alphabet, and to blend these sounds into syllables and the syllables into words with appropriate accent."[1] Phonics instruction, then, concentrates on helping pupils synthesize what they see with what they hear in order to achieve accuracy in pronunciation.

If this definition of phonics instruction is valid, *phonic readiness* must be considered much more than the "ear training" a number of investigators suggest it may be. From the investigations of people in the speech field (2, 8), it is obvious that articulation of sounds is an important concept in phonic readiness. By the chronological age of four and a half the average child can articulate as many as twelve consonant sounds. On entrance into first grade he can articulate all vowel sounds and sixteen to twenty-one consonant sounds. However, it isn't until the end of grade three that most children are able to discriminate among most sounds (12). It appears that a great deal can be done with very young children in getting them to articulate sounds although more time seems needed in the development of auditory discrimination.

It also seems that much work needs to be accomplished in helping children discriminate visually—not for the so-called, nonexistent look and say program—but for the phonics program. Success in phonic analysis depends upon the achievement of skill in each modality—visual and auditory. In addition, it would seem imperative that much emphasis be placed upon training in synthesis. Visual and auditory discrimination must be synthesized if a pupil is to achieve ultimate success in phonic analysis.

[1]William S. Gray, *On Their Own in Reading*. Chicago: Scott, Foresman and Co., 1960.

### When to Begin?

"When should phonics instruction begin?" is an ancient, confusing, and still essentially unanswered question. Only seven reports spanning the years from 1925 through 1958 (1, 3, 4, 5, 7, 10, 14) represent the total range of "answers" contributed by research. In these studies suggestions for when to begin phonics instruction are given in terms of mental age or grade placement.

Reporting in terms of mental age, Arthur (1) concluded that a mental age of six and a half was the optimum time for introducing phonics instruction although some gains in phonic ability were made beginning at a mental age of five and a half. She based her conclusion on the results of a study of 171 first graders grouped according to mental age. Arthur's research design was well conceived, but the teaching variable was not controlled. Dolch and Bloomster (3) also conducted a study of mental age and phonic achievement. They found, on the basis of scattergrams made from 115 scores, that children of high mental age might *sometimes* fail in acquiring phonic skills but children of low mental age were certain to fail. A mental age of seven seemed to be the lowest at which a pupil could be expected to use phonics. Dolch and Bloomster's study, although it had a number of limitations recognized by the investigators, was carefully designed and replicated. The word-attack tests used, however, were experimental and no information was furnished about their validity and reliability.

Durrell's recent report (4) based on four doctoral studies challenged the importance of mental age. Three of the investigators found that mental age had a low relationship with the ability to use phonics and with reading achievement in general. Durrell recommended teaching phonics, at varying rates, to all pupils at the very beginning of the first grade. Helen Robinson, in a detailed critique of the Durrell report, concluded that it did ". . . not supply dependable evidence to

533.

determine . . . whether or not teaching letter names and letter sounds before teaching a sight vocabulary is essential."[2]

Reporting in terms of grade placement, Garrison and Heard (5) concluded that most of the training in phonics should be deferred until grades two and three. McDowell (7) and Sexton and Herron (10) found that the teaching of phonics was of little or no value during the first half of first grade. Sexton and Herron added that instruction in phonics was of greater value in grade two. Winch (14), in a study of teaching beginners to read in England, also suggested delaying phonics instruction until grade two. The children in grade two of the English infants' school, however, were a year younger than American children in grade two; hence, Winch really concluded that phonics instruction succeeds with most school children who have reached the chronological age of five and a half. The studies concerned with beginning phonics instruction and grade placement, although interesting in terms of group trends, suffered from hazy control of significant variables.

These few studies, with their flaws and limitations, appear to represent the only available evidence of any substance relating mental age or grade placement to beginning phonics instruction. Numerous professional writers, apparently basing their conclusions on some of the available evidence, have generalized about the inadvisability of beginning phonics instruction before the mental age of six and a half or seven, or prior to a given time in the chronology of instruction. Perhaps such generalizations are necessary since no other conclusive proof is available and teachers need the guidance in order to develop an instructional program. On the other hand, such generalizations, repeated over the years, eventually seem to become accepted as factual information. Authors build them into reading series, curricula are based on them, and teachers accept them. After a while, especially in instructional situations, no one is sure of where a given generalization comes from, but its very existence gives it some magical importance. The doubter, the person with another concept, will find it difficult indeed to overcome the bias growing out of the "now-established-as-conclusive research evidence."

The professional literature does not contain, by any standards, adequate reports by teachers discussing classroom experimentation in detail or reflecting about possible changes in phonics instruction viewed by the teacher who has taught first graders for five or ten years. Since there is a paucity of controlled research concerned with when to start phonics instruction, and since it is most difficult to design research so that all variables are controlled, an accumulation of accurate reports by teachers would be of great value. Every effort must be made, however, to report evidence based on logical approaches tested and retested in many situations.

Even then questions about "Which came first, the chicken or the egg?" may be raised, and with reason. For example, the results of Russell's study (9) of teachers' views on phonics indicated that the teachers favored emphasis on phonics in grades two and three or in different grades dependent on need. What certainty is there that this opinion is based on years of experimental and creative teaching? Weren't these teachers probably taught how to teach reading through the use of professional materials and with the help of instructors dedicated to delayed phonics instruction? Weren't they probably teaching reading with the help of manuals and instructional materials based on the concept of delayed phonics instruction? Could they report without built-in bias?

## Begin with Whom?

If phonics instruction incorporates the steps of visual discrimination, auditory discrimination, and synthesis of the two, the research on *when to teach phonics* is indeed inconclusive. Even those reading programs labeled "traditional" or "look and say oriented" introduce this kind of phonics instruction in the kindergarten or very early in the first grade. Perhaps research directed toward when the *various steps* of phonics instruction should take place is needed.

There is no reliable evidence that points

[2]Helen M. Robinson, "News and Comment: Methods of Teaching Beginning Readers." *Elementary School Journal*, LIX (May, 1959), p. 426.

534.

to the latter part of kindergarten or to a mental age of five or to the first month of first grade as the best time for concentration on auditory or visual discrimination. There is no reliable evidence that proves 50, 100, or three sight words learned by pupils make them then ready for phase one of phonics instruction.

Can such evidence be obtained? Would such research not be subject to the same basic flaws obvious in almost all of the research concerned with phonics instruction—lack of attention to the individual abilities and needs of pupils. Certainly the research directed toward the appropriate time for instruction in phonics, reported here, has dealt with group behavior, medians, and averages.

A small body of research has been directed toward certain kinds of individual needs. Investigators (11, 12, 13) interested in the auditory learning modality, have indicated that all children may not profit from an auditory-approach to reading. Wepman (12) suggested that instruction, at least in the beginning stages, be individualized in terms of auditory and visual learners. He indicated that children ". . . who show inadequate discrimination of the discrete units of speech sounds usually have poor articulation in speech and equally poor ability to learn to read by phonic approaches." He suggested that ". . . the teaching of reading as well as therapy for the articulatory inaccuracy in speech production should first approach both tasks from other modalities, e.g., visual or kinesthetic."[3] If the question of when phonics instruction should begin were now posed, the tentative answer would have to be related to ability or needs in auditory discrimination.

In the Garrison and Heard and Dolch and Bloomster studies, there appeared to be some evidence to support the conclusion that bright children in the first and perhaps the second grades received more help from phonics instruction than the dull. One can assume, therefore, that another answer might be to start teaching phonics to the bright and delay instruction for the dull. Grimes and Allinsmith (6) on the basis of a study of third graders in two city schools, concluded that pupils who are highly compulsive, highly anxious, or both, will achieve better under a phonics program than under the "look and say" approach. In this case the question of *when* seems related to personality traits.

It seems essential that thought and research related to phonics focus on the individual needs of pupils. A great deal has been written and said about individuals and their needs, but research and instruction still seem pretty far removed from practical utilization of the concept. A number of questions related to the time for beginning phonics instruction must be answered. Do individual pupils learn to attack words in very different ways and at very different times? Are there enough similarities about the way some children learn so they can be grouped for instruction in terms of certain modes of learning? Would instruction based on specific learning needs accomplished in kindergarten or the beginning of grade one permit some children to use phonics earlier? Should some pupils never be given instruction in phonics? If phonics instruction is begun very early, can there be an adverse effect on pupils' school progress in later years?

In a recent address concerned with the future of beginning reading instruction, Gates stated that "whatever age is adopted as the 'normal' one for beginning reading, some children can start earlier and others should start later for optimum results. The one certain outcome of research on the age of beginning reading is that an educational-psychological case or clinical study should be made of each child to determine the best time and method of introducing him to reading."[4]

[3]Joseph M. Wepman, "The Interrelationships of Hearing, Speech and Reading," *The Reading Teacher*, XIV (March, 1961), p. 246.

[4]Arthur I. Gates, *A Look Ahead.* Comments made at a Conference on Possibilities of Improving the Teaching of Reading in the Primary Grades, under the auspices of the Department of Health, Education, and Welfare, Office of Education, Washington, D. C., November 16, 1962, p. 2.


REFERENCES

1. Arthur, G., "A Quantitative Study of the Results of Grouping First-Grade Classes According to Mental Age," *Journal of Educational Research*, XII (October, 1925), pp. 173-185.
2. Davis, I. P., "The Speech Aspects of Reading Readiness," *National Elementary Principal*, 17th Yearbook, XVII (July, 1938), pp. 282-289.





3. Dolch, E. W., and Bloomster, M., "Phonic Readiness," *Elementary School Journal*, XXXVIII (November, 1937), pp. 201-205.
4. Durrell, D. D. (ed.), "Success in First Grade Reading," *Journal of Education*, CXL (February, 1958), pp 1-48.
5. Garrison, S. C., and Heard, M. T., "An Experimental Study of the Value of Phonetics," *Peabody Journal of Education*, IX (July, 1931), pp. 9-14.
6. Grimes, J. W., and Allinsmith, W., "Compulsivity, Anxiety, and School Achievement," *Merrill-Palmer Quarterly of Behavior and Development*, VII (October, 1961), pp. 247-269.
7. McDowell, J. B., "A Report on the Phonetic Method of Teaching Children to Read," *Catholic Educational Review*, L (October, 1953), pp. 506-519.
8. Poole, I., "Genetic Development of Articulation of Consonant Sounds in Speech," *Elementary English Review*, XI (June, 1934), pp. 159-161.
9. Russell, D. H., "Teachers' Views on Phonics," *Elementary English*, XXXII (October, 1955), pp. 371-375.
10. Sexton, E. K., and Herron, J. S., The Newark Phonics Experiment," *Elementary School Journal*, XXVIII (May, 1928), pp. 691-701.
11. Schmidt, B. G., "Teaching the Auditory Learner to Read," *Chicago Schools Journal*, XIX (May-June, 1938), pp. 208-211.
12. Wepman, J. M., "Auditory Discrimination, Speech, and Reading," *Elementary School Journal*, LX (March, 1960), pp 325-333.
13. Wepman, J. M., "The Interrelationship of Hearing, Speech, and Reading," *The Reading Teacher*, XIV (March, 1961), pp. 245-247.
14. Winch, W. H., *Teaching Beginners to Read in England: Its Methods, Results, and Psychological Bases*, Journal of Educational Research Monographs No. 8. Bloomington, Illinois: Publishing School Publishing Co., 1925, pp. 185.


535.

173.

Vol. 9, 64

26.

# 5. Perceptual and Conceptual Style Related to Reading

HELEN M. ROBINSON



AS EARLY as the beginning of this century, psychologists investigating visual perception postulated two types of observers which they described as objective and subjective or part and whole perceivers. Children generally were considered to belong to the whole-perceiver group. Later research, however, revealed that there was variation in an individual's approach to perceiving objects at different times.

In 1914, Smith[1] found that when children viewed pictures tachistoscopically, some analyzed the details while others saw the pictures as wholes. Summarizing many studies of visual perception, Vernon concluded that "different modes of perceiving may be partly a function of maturity, partly of social and educational background; but may also have some temperamental basis."[2]

Goins[3] used a Picture Squares Test and reported that the distribution tended to be bimodal. She noted that children who progressed rapidly on the test appeared to see the nine pictures within a square as a group while those who progressed slowly looked at each picture in the square separately until a pair could be matched. The test correlated .381 with a reading achievement test at the end of grade one.

Using the Rorschach Test, Gann[4] found that poor readers were preoccupied with unimportant details. Solomon[5] reported a similar tendency among boys who were poor readers, while successful readers overemphasized the theoretical and abstract aspects of the Rorschach.

Thus, a number of studies at the primary grade level lead one to suspect that some children tend to be "whole" perceivers while others tend to perceive "parts." Undoubtedly the majority of pupils change their patterns according to the task, the "set" or motives. The nature of the studies also raises an interesting question concerning the etiology of the differences in perceptual types; that is, are differences due to personality as suggested by the Rorschach, or due to experience in the preschool years. Perhaps, as Vernon suggested, a developmental pattern may be found.

In a recent study of 448 pupils made by the writer,[6] the coefficient of correlation between the Picture Squares Test and of first-grade scores on the Metropolitan Reading Achievement Test was .411; by the end of Grade two, the coefficient was .329 and at the end of grade three, .221. The decrease in coefficients may reflect maturation, or a change in the demands of the reading process.

## Middle Grade Level

The Raven Coloured Progressive Matrices which, according to Raven, requires the use of perceptual and eductive abilities was used by Wickens.[7] At grade four, this test differentiated 25 good from 25 poor readers with statistical significance ($P = .02$). Whether largely perceptual or conceptual, the differences on this test were clearly demonstrated.

Examining the remainder of Wickens' data dealing with abstracting ability in the light of the whole-part relationships, a marked and highly significant difference ($p < .05$) between the good and poor readers was found between the Word-Grouping and Figure-Grouping subtests of the Primary Abilities Test, Elementary Form AH. In this instance too, the unification of the parts into a whole, with attendant relationships was exceedingly difficult for poor readers.

At the grade four level also, Jay[8] used 35 reading tasks, correlated the scores and completed a factor analysis of the intercorrelation matrix. She concluded that classifying words may be an essential task in reading. While some children could read the words, still they had trouble classifying them, and in proportion to their decreasing reading scores.

At the fourth-grade level, there is evidence of a tendency toward differences in the ability of selected pupils to deal with wholes and parts, again closely related to competence in reading.

---

[1]Frank Smith. "An Experimental Investigation of Perception," *British Journal of Psychology*, VI (February, 1914), pp. 321-62.

[2]M. D. Vernon. *A Further Study of Visual Perception*. London: Cambridge University Press, 1952, p. 250.

[3]Jean Turner Goins. *Visual Perceptual Abilities and Early Reading Progress*. Supplementary Educational Monographs, No. 87. Chicago: University of Chicago Press, 1958, p. 63.

[4]Edith Gann. *Reading Difficulty and Personality Organization*. New York: King's Crown Press, 1945.

[5]Ruth H. Solomon. "Personality Adjustment to Reading Success and Failure," in *Clinical Studies in Reading II* (Helen M. Robinson, Ed.) Supplementary Educational Monographs, No. 77. Chicago: University of Chicago Press, 1953, p. 81.

[6]Unpublished.

[7]Alice R. Wickens. "The Ability of Good and Poor Readers to Abstract." Unpublished Ph.D. dissertation, University of Chicago, 1963.

[8]Edith Sherman Jay. "A Factor Study of Reading Tasks." Unpublished Ph.D. dissertation, University of Chicago, 1950.

536.

### High School Level

A study of 30 high school seniors made by Smith[9] reveals some distinct differences in the way students read. She asked each student to read one selection to secure the details (parts) and a parallel selection to obtain the general impression (whole). Questions dealing with both aspects were asked after the reading of each selection was completed. Thereafter, all students were ranked from 1-30 based on the answers to the questions in four categories. Some of these students consistently read the selections for details, others for general impression, regardless of the purpose proposed by the investigator. A good reader, for example, ranked second and fifth on questions of general impression, but seventeenth and twenty-sixth on questions requiring details. In contrast, another good reader ranked first and seventh in answering detail questions, but nineteenth and twenty-fourth in obtaining general impressions. Among the thirty students, eight consistently favored reading for details or for general impression while the remainder varied their approaches.

### College Level

An intensive study of 39 college freshmen made by Swain[10] was concerned with the verbalized process of answering questions about materials read during the experiment. Although her sample was small, it included good, average, and poor readers. One of the dimensions she adopted to examine her protocols was called analysis of language (when the language form seems to be the crucial element) and restructuring of meanings (when the meaning stimulated by the language is the chief consideration). She found that analysis of language typically characterized a few of the poor and average readers. In contrast, restructuring of meanings was used by good readers, especially in answering questions which were more difficult, and was used less by poor readers. While this classification resembles some aspects of whole-part relationships, the nature of the classification is not as clear as it was in the previous studies.

On 74 perceptual tests administered to fast and slow readers at the college freshman level, Thurstone[11] found that the fast readers were quicker than the slow readers in identifying dotted outlines. Likewise, fast readers were form-dominant and made quicker decisions on the color-form sorting test. In contrast, the fast readers were slow in discovering hidden digits and had a greater number of failures than the slow readers.

### Summary

Vernon and others have postulated perceptual styles emphasizing whole or part perception. Several recent studies of visual perception among children in the primary grades have supported the conclusion that whole perceivers tend to learn to read more effectively than do part-perceivers. However, the possibility that the pattern persists into the conceptual domain is suggested by a few investigations of reading beyond the level at which perception is the dominant aspect of reading. While most students appear to be flexible and able to move from wholes to parts as their purpose dictates, it is possible that others at the extremes of the dichotomy rely heavily on a single perceptual and conceptual style. Only longitudinal studies over a number of years can test this hypothesis. Should it be confirmed, then obviously rigorous analysis of the etiology of each type will suggest the possibilities of change, and/or the necessity for adapting instructional methods to individual learning styles.

[9]Helen K. Smith. "Research in Reading for Different Purposes," in *Changing Concepts of Reading Instruction* (J.Allen Figurel, Ed.). New York: Scholastic Magazines, 1961, pp. 119-22.

[10]Emeliza Swain. "Conscious Thought Processes Used in the Interpretation of Reading Materials." Unpublished Doctoral Dissertation, Department of Education, University of Chicago, 1953.

[11]L. L. Thurstone. *A Factorial Study of Perception*. Psychometric Monographs, No. 4. Chicago: University of Chicago Press, 1944.

28

537.

pupil to read successfully and at the same time difficult enough to challenge him. Too often improper instructional level dooms the child to failure. If word recognition and comprehension skills are to be taught successfully, they must be taught in materials the pupil can handle.

Adjusting a pupil's instruction in reading to his specific needs necessitates an evaluation of his reading abilities through a variety of means. Evaluation should be comprehensive, detailed and aimed toward the objectives of instruction. The classroom teacher needs practical techniques and procedures for appraising reading performance. Techniques to be used in evaluation will depend upon the particular skill to be appraised. Data obtained from such appraisals and appropriate evaluation of them will help the teacher to select proper materials and plan her instructional program. Many types of information are needed by the classroom teacher for her to be aware of the pupil's pattern of growth in reading. The most useful information is derived by various techniques such as standardized tests, informal inventories, cumulative records, teacher observation, and questionaires. The technique discussed here is the informal inventory.

### Informal Reading Inventory

Several procedures in determining the instructional level have been suggested by authorities in the field of reading. Many teachers use an informal reading inventory to assess the pupil's reading abilities and disabilities as he reads at several difficulty levels. The instructional level is the highest level at which the child can do satisfactory reading under teacher guidance.

Educators are aware that evaluation should combine the use of both formal and informal procedures. The informal inventory is not an exact measure of the pupil's reading, but when used with discrimination it offers more useful information in a shorter period of time than can be obtained from standardized tests.

### Materials

The type of materials used should be a series of carefully graded reading text-

## 4. Establishing the Instructional Level

HAZEL D. SIMPSON
University of Georgia

THE EFFECTIVE teaching of reading depends upon the appropriateness of the instructional materials. These materials should be easy enough for the

books. The teacher should have duplicate copies of each book on the various difficulty levels. It is likely the teacher could use a typed copy of the selection to be read. The difficulty level of the materials would range from pre-primer level to the highest level a pupil is likely to read. The teacher selects the books from the range most likely to be appropriate for the pupil being tested.

She should prepare comprehension questions on the sample of the story to be read from each book in the series.

### Selection of Stories

The teacher should select a story in each book in the series at least 20 pages from the beginning of the text. The selection should contain approximately 100 words. This can be done at every level with the exception of the pre-primer level. It is likely the teacher would have to make a selection nearer the beginning of the book for this level. The selection read in a pre-primer would of necessity be one which contained fewer than 100 words.

### Preparation of Questions

Questions should be prepared before the administration of the inventory. They should be prepared in multiples of four for ease of scoring. Four questions are usually appropriate at the first-grade difficulty level. Eight questions are usually used at higher levels. If the selection contains more than 100 words and is more informational, twelve questions may be used. These questions constitute the comprehension check on the material.

Questions should be prepared to include some factual, vocabulary and inferential or thought responses. The teacher should remember to formulate questions which are based upon the reading material rather than on experience. No "catch" questions should be used. State the questions so that exact wording of the story is not necessary. In most instances avoid the use of questions that require a simple "yes" or "no" response.

The role of teacher judgment in the making of good questions is an important one. She should consider whether the points selected for questioning are the important ones in the selection. It is wise to try to avoid the use of unimportant detail as a basis of questions.

After sets of questions on the books to be used have been formulated, the teachers may revise them as use proves that certain of them are inappropriate. A good set of questions may be used over and over with different children.

### Criteria for Success

The instructional level is the highest level at which the child meets the two criteria for success. These criteria are that he comprehends at least three-fourths of the main ideas within the sample and does not miss more than one in each twenty words in the materials read.

After silent reading of the material the pupil should answer three-fourths of the questions correctly. The word recognition criteria are based on the number of words on which the pupil requests help as he reads silently and on the words he missed while reading orally the same selection.

To get the total word recognition count, repeated misses and proper names are not counted. For example, if the pupil misses the same word in both silent and oral reading, it is counted only one time.

There will be times when the pupil meets the two criteria for success at a given difficulty level and the teacher feels that a lower level is more appropriate for instructional purposes. Even though he comprehends three-fourths of the main idea and does not miss more than one in twenty words, the pupil may show many symptoms of poor reading. He may read word-by-word, appear to be tense in oral reading, and whisper or move his head during silent reading at the highest level of success. It would seem indicated that a lower level should be used for instruction. With a choice between two levels, the teacher should decide upon the lower level in most cases. After a short instruction period, it is likely she can move the child to the higher level.

### Estimating Starting Level

The role of teacher judgment is an important one in estimating the starting point of the inventory. The teacher wants

a difficulty level which would assure the child success for the first book. If the teacher knows the last level at which the child was instructed, she may use this as an appropriate beginning. Should this first level prove to be too difficult, the teacher would always shift to a lower level.

### Series to Use

If the teacher is attempting to estimate the pupil's general level of reading, a series unknown to the pupil may be used. If she is attempting to determine the book in which the pupil should be instructed, then she would use the series being taught in the classroom in her reading groups.

### Time of Administration

An experienced teacher usually can administer the inventory in 15 to 20 minutes. It is likely that during the first few weeks of school, a part of the reading period may be used for testing. The teacher may arrange independent activities for the other pupils while she works directly with one pupil in giving the inventory.

All pupils will not need an informal reading inventory. It may be used with pupils about whose reading instruction level the teacher is in doubt. If the teacher does not have adequate information about some of the children who transfer, the informal inventory will be very useful.

### Administration Procedures

The administration procedure would be the same for a selection from each book within the series.

1. Give a quick introduction for the story and then say: "Read this part of the story silently and remember what you read because I will ask you some questions about it. If you come to a word you do not know or can't figure out, I'll be glad to help you."

   During the time the pupil is reading silently the teacher will observe and record any symptoms of poor reading. She gives help on word pronunciation if the pupil requests it, and records these words.
2. Remove the book and ask the comprehension questions. Responses are recorded.
3. Ask the pupil to read orally the same selection. The teacher checks an oral reading checklist for any symptoms of poor reading. The words mispronounced by the pupil are recorded.

If the criteria for success are met in the first selection used, the next higher level should be tried. This continues until the pupil fails one or both criteria.

If he fails on the first selection used, then the next lower level is used.

### Guide Sheet

Teachers may develop a check sheet or guide for recording the results of the informal reading inventory. One sheet may be used for four selections read by the pupil. Silent reading and oral reading checklists should be included. Space should be left for notes made by the teacher about the pupil's word recognition skills.

### Conclusion

Growth in reading is a continuous process. For the pupils and teachers to benefit from evaluations of reading progress, many techniques must be used. One of the greatest difficulties facing teachers in the public schools is that of adjusting to the reading levels of their pupils. To establish the instructional level of a pupil, informal appraisals may be used. In evaluating the results of an informal inventory, the teachers should be aware of many other appraisal devices to be used. No one informal inventory should be used without supportative information from many sources.

175.

Vol. 10, 1965

## B. UPPER ELEMENTARY LEVEL

49.

### 1. Broadening Our Perspectives of Listening and Speaking Problems

VERNON L. SIMULA
University of Minnesota

THE DIAGNOSTIC approach to teaching is premised upon the assumption that the more accurately a teacher can perceive and understand the problems with which he deals—the more effectively he will teach. This assumption has long been a central tenet in the teaching of reading. So, too, is it appropriate as we deal with the problems of listening and speaking.

#### Listening Problems

Classroom teachers have tended to perceive four general types of listening problems. These include problems in (1) following directions, (2) inattentiveness, (3) forgetting, and (4) understanding or listening comprehension.

Before we can decide how we might remedy such problems, we must raise a critical question. Are these problems really problems in listening—or are they just symptoms of other more basic problems which plague the child? A re-examination of listening problems appears necessary.

The problem of inability to follow directions is illustrated by the child who is constantly asking the teacher for help. Is this just a listening problem—or is this a habit which the child has learned within the classroom and one which the teacher reinforces unwittingly? Or is this a child who is seeking to avoid uncertain, ambiguous situations? Is this a child who frequently exhibits symptoms of dependent behavior towards the teacher? Is the inability to follow directions just a listening problem?

What of the child who is inattentive? —whom the teacher describes as one who just *never* listens? Is inattentiveness just a poor listening habit—or might it be a problem of motivation? Might the child's inattentiveness be his means of rebelling against adult figures in authority? Is the inattentive child one whose cultural home background places little value on acquiring knowledge and skills in school? Is inattentiveness just a listening problem?

What of the forgetful child—about whom the teacher complains that he can't even remember the number of the page to

541.

which he was told to turn? Has this child learned within the classroom that the teacher will usually repeat the directions several times? Is the child's forgetfulness his way of avoiding situations which he perceives as being psychologically threatening to him? Is forgetfulness just a listening problem?

The fourth type of listening problem is that of difficulty with understanding. Why is it that a teacher needs to explain and explain new content? Is there something wrong with the *child's* listening ability? Or is it because the teacher does not organize the material well? Is the student aware of the organization? Does the teacher preview what is going to be discussed? Does the teacher give the student an opportunity to relate the concepts to his past experiences? Does the teacher define the specific purposes for listening? Does the teacher realize that his choice of words may constitute an obstacle to the child's understanding of an otherwise easy-to-acquire concept? Does the teacher allow the student to actively verbalize the new ideas in his own words? When a child has difficulty with listening comprehension, is there something wrong with the *child's* listening ability? Is the problem of understanding just a listening problem?

## Speaking Problems

Typically, teachers have been concerned with such speech problems as difficulties in articulation and rhythm. If, on the other hand, teachers were to broaden their definition and consequent perception of speech problems, how would they interpret the child who only seldom speaks in class? Or what of the child who is constantly jabbering, constantly seeking the teacher's attention? What of the child who has difficulty organizing his thoughts coherently? The possible implications of such behavior become more apparent when they are viewed from a mental health frame of reference.

And how might the school curriculum contribute to speaking problems? The answer to this question was put aptly by Lucile Lindberg who said: "In many schools a tremendous value is placed on quietness. We teach children not to talk. We threaten them if they do talk and then we initiate elaborate lessons to stimulate them to speak."[1]

## Communication and Cognition

During the past few years, the field of linguistics has provided teachers of reading with means of perceiving the reading process more accurately. Similarly, the fields of communication and cognition can contribute to our understanding of listening and speaking skills.

The communications model incorporates a transmitter and a receiver as its basic elements which are involved in the processes of encoding, transmitting, and decoding information. Such a model serves to illustrate various significant aspects of human communication.

In the encoding process, the model tells us that the individual puts his ideas into words. For years, the semanticists have been describing this fundamental characteristic of the language process—that our ideas are not identical with the language symbolism which we use to represent or convey our ideas. As teachers, this characteristic allows us to choose selectively words appropriate to the language abilities of our students.

The transmission phase illustrates the characteristic that the ideas or the meanings themselves are not actually transmitted from the speaker to the listener. The speaker sends only the physical, oral sounds to the listener. The listener must then select from his store of meanings those which he has learned are appropriate. The implication for classroom instruction is that teachers do not transmit meanings or ideas or concepts. Our communication with elementary children is restricted by the type and amount of meanings that are already stored in those "little receivers."

In the decoding phase, the receiver must have its power switch turned on. Electronic reception is an *active* process. So it is with listening.

The field of cognition is essentially a study of the thinking processes. Three men, Piaget, Bruner, and Ausubel, have made unique contributions to our understanding of children's thinking processes.

Piaget tells us that the growth of thinking ability proceeds through certain devel-

[1]Lucile Lindberg. Quotation cited in *Elementary English*, March 1965, p. 264.

542.

opmental stages. In our classroom discussions, do we conduct our communication at a level that is beyond the grasp of some of our students in terms of their cognitive levels of development? Do some of our students hear only words instead of ideas because of the type of thinking processes we require of them? Are these the children who begin to tune us out? Is this a manner in which some of our listening problems are created?

Bruner has described the thinking processes in terms of categorizing behavior. He equates categories with concepts.

A major objective of elementary education is to develop the child's stock of concepts or ideas. Our principal means for doing this is by oral communication. If we were to examine our use of oral language in concept development, we might ask: What is it that we are actually teaching—new concepts or technical terminology—intriguing ideas or sophisticated synonyms? Might this be another source of listening and speaking problems?

Ausubel has given us a theory of meaningful verbal learning. He notes (1) that receptive verbal learning is a highly active process and (2) that the listener must be aware of the structure of the ideas which he is encountering.

Do our classroom methods reflect these principles of Ausubel's theory? Do we allow children to be active participants in the learning situation? Do we attempt to organize our material? Do we preview the new topics so that students can perceive the general structure as well as understand how the material relates to what they already know?

In dealing with the problems of listening and speaking, let us shift our focus. Instead of wording our objectives in terms of teaching children to listen and to speak effectively, let us focus on teaching elementary boys and girls to think and to communicate effectively. By doing so, many of our listening and speaking problems can be alleviated — and others prevented.

REFERENCES

1. Anderson, R. C., and Ausubel, D. P., (eds). *Readings in the Psychology of Cognition.* New York: Holt, Rinehart and Winston, Inc., 1965.
2. Bruner, J. S. *The Process of Education.* Cambridge: Harvard University Press, 1960.
3. Flavell, J. H. *The Developmental Psychology of Jean Piaget.* Princeton, N. J.: Van Nostrand Company, Inc., 1963.
4. Goodman, K. S. "A Communicative Theory of the Reading Curriculum," *Elementary English,* 40 (March, 1963), pp. 290-298.
5. Smiley, M. B. "Do Your Classroom Procedures Really Teach Communication?" *English Journal,* 47 (February, 1958), pp. 81-85.

543.

176.

Vol. 9, 61

## 8. Substrata-Factor Theory of Reading: Grade and Sex Differences in Reading at the Elementary School Level[1]

HARRY SINGER

THE SUBSTRATA-FACTOR theory of reading[2,3,4] asserts that general reading is

[1]The Research reported herein was supported through the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

[2]Jack A. Holmes. *The Substrata-Factor Theory of Reading.* Berkeley: California Book, 1953. (Out of print)

[3]Harry Singer. *Conceptual Ability in the Substrata-Factor Theory of Reading.* Unpublished doctoral dissertation. University of California, Berkeley, 1960.

[4]Jack A. Holmes and Harry Singer. *Substrata-Factor Differences Underlying Reading Ability in Known Groups.* Final Report Covering Contracts No. 438, SAE-8176, and No. 538A, SAE-8660, U. S. Office of Education, 1961.



TABLE III

CORRELATIONS BETWEEN FORMS A AND B RAW SCORES OF THE S.R.I. FOR EACH OF THE EIGHT SUBTESTS OF READING ACHIEVEMENT MEASURED AT EACH BOOK LEVEL

(Number of Pupils Given in Parentheses)

| Area of reading achievement | pre-primer | primer | 1-2 | 2-1 | 2-2 | 3-1 | 3-2 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Oral speed | (22) 0.96** | (18) 0.97** | (15) 0.75** | (29) 0.95** | (29) 0.93** | (32) 0.95** | (34) 0.90** | (32) 0.75** | (23) 0.70** | (11) 0.80** | (6) 0.73* |
| Oral comprehension | (22) 0.50** | (19) 0.62** | (15) 0.04 | (27) 0.54** | (28) 0.44** | (32) 0.34* | (34) 0.29* | (33) 0.56** | (23) 0.17 | (11) 0.47 | (6) 0.24 |
| Total errors | (22) 0.80** | (19) 0.92** | (15) 0.13 | (29) 0.47** | (29) 0.59** | (32) 0.62** | (34) 0.56** | (34) 0.61** | (23) 0.81** | (11) 0.72** | (6) 0.90** |
| Word recognition errors | (22) 0.77** | (19) 0.93** | (15) 0.25 | (29) 0.70** | (29) 0.54** | (32) 0.68** | (34) 0.74** | (34) 0.66** | (23) 0.64** | (11) 0.62** | (6) 0.86** |
| Silent speed | | (12) 0.94** | (24) 0.84** | | (31) 0.88** | | (32) 0.90** | (27) 0.91** | (17) 0.61** | (9) 0.96** | (4) 0.71 |
| Silent comprehension | | (12) 0.47* | (24) 0.24* | | (31) 0.29* | | (33) 0.37** | (27) 0.47** | (18) 0.30 | (9) 0.27 | (4) —0.77 |
| Vocabulary in isolation | (14) 0.35 | (16) 0.97** | (13) 0.87** | (17) 0.77** | (20) 0.84** | (22) 0.86** | (28) 0.91** | (35) 0.91** | (33) 0.91** | (31) 0.87** | (20) 0.78** |
| Vocabulary in context | (22) 0.61** | (19) 0.91** | (15) —0.05 | (29) 0.77** | (29) 0.70** | (31) 0.73** | (34) 0.62** | | | | |

**Significantly different from zero at or beyond the 0.01 level ($p \leqq 0.01$).
*Significantly different from zero at the 0.05 level ($p \leqq 0.05$).

544.

an audio-visual processing skill of symbolic reasoning. This ability divides into two major interrelated components: speed and power of reading. Underlying and supporting each component is a complexly interwoven hierarchy of elements and processes. The elements are mobilized into substrata-factors and organized into working-systems that function at various substrata levels according to the momentary purposes of the reader and the demands of the material. Hence, as the individual reads he constantly organizes and reorganizes the elements into substrata-factors at different substrata levels. At one time, he may organize these elements into a substrata-factor system for the purpose of conceptualizing, relating ideas, or reasoning-in-context; at another moment, call upon those elements that will enable him to understand word-meaning-in-context; and at the next instant, reorganize his working-system and mobilize auditory, visual, and perhaps spelling subskills and processes for the purpose of attaining word-recognition-in-context. Throughout his reading the individual not only shifts his working-system and mobilizes auditory, visual, and of his general organization for power of reading, but he also switches from power to speed of reading; as he does, he changes from a working-system that enables him to read difficult materials somewhat analytically and mobilizes into another working-system those subskills that permit him to read relatively easy material at a faster rate.

In general, as the individual matures in reading ability, not only do his subskills improve in variety and magnitude, but they also become organized into subsystems and sequences of subsystems which may be broadly categorized as word-recognition-substrata, word meaning substrata, and reasoning-in-context-substrata. Moreover, as a result of instruction and practice, an individual learns to organize a subsystem in which the factors psychosynchromesh because all the related factors have been mobilized in proper order and magnitude. The reader thus gains a maximum of interfacilitation in his mobilized working system. The individual can then concentrate more of his mental energy upon ideas derived from the printed page. Gradually the individual not only improves in power and speed of reading, but also in the organizational process by which he attains these products of his general working system. At maturity, therefore, his working-systems, in general, function fluently for symbolic reasoning from printed symbols.

Many kinds of working-systems for power and speed of reading result from individual differences in (a) rate of maturation and degree of capacities, (b) method, sequence, and degree of learning, (c) background experiences and range of resulting ideas, and (d) temperament and motivation, as well as values. These differences are manifested in the kinds and relative amounts of subskills which each individual mobilizes into a working-system to solve a particular task. Hence the degree of achievement attained and the processes underlying the solution of a task may vary from person to person. However, there is more than one route to the goal of success in reading; that is, two individuals may attain the same degree of achievement but by means of different working-systems.

In essence, the substrata-factor theory of reading is an explanation of the development and dynamic functioning of an intellect that is trained to transform symbolic stimuli into mental processes for the purpose of associating meaning, and to manipulate these meanings by various ideational processes in order to comprehend efficiently and effectively the thoughts of another person as expressed in his writing.

## Problem

The hypothesis, derived from the substrata-factor theory of reading, which needs to be tested, is the following: development of general reading ability in grades 3 to 6 is functionally related to systematic changes in the magnitude of the elements and/or reorganization of their interrelationships in the general working-system mobilized for attaining speed and power of reading.[5] Only the data for the first part of this hypothesis has as yet been analyzed. This interim report will, therefore, be delimited to these specific prob-

[5]Harry Singer. *An Investigation of Changes Accompanying Development of General Reading Ability at the Elementary School Level.* U. S. Office of Education, Contract No. 2011, February 1, 1963 to January 31, 1965. Final report in preparation.

lems: (a) which elements change and to what degree from grade to grade and (b) whether boys and girls at each grade level differ significantly in the functions measured in this study.

These problems may be formulated in terms that have greater relevance for the classroom teacher: as pupils learn to read throughout the grades, their mean scores in speed and power of reading increase each year as measured on such a test as the Gates Reading Survey or Durrell-Sullivan Reading Achievement.[6] Concomitantly during these grades, teachers instruct pupils in a variety of subskills, such as word meaning, prefixes, and syllabication, in the belief that development of such subskills will improve general reading ability; simultaneously, pupils' mental capacities mature and mental structures emerge.[7] Pupils, therefore, become increasingly able to benefit from instruction, learn at higher levels of abstraction, integrate what they have learned, and be more flexible in reading.[8]

Although teachers know what and when they teach a particular subskill, they do not know what pupils in general may, in fact, be learning, integrating, and utilizing for attaining improvemet in speed and power of reading. However, teachers tend to believe that certain subskills develop to maturity during the primary grades while other subskills continue to develop throughout the grades. For example, popular opinion among teachers maintains that pupils in general have attained maturity in word recognition abilities by the end of grade 4. This study is designed to give teachers a better understanding of which elements improve concomitantly with development of speed and power of reading, the degree to which these elements develop from grade to grade and therefore which elements to emphasize in planning instruction in reading.

[6]In this study, *Power of Reading* is a composite of standard scores on Gates Level of Comprehension and Durrell-Sullivan Paragraph Meaning; *Speed of Reading* is a composite of standard scores on Gates Speed of Reading and Van Wagenen Rate of Comprehension.

[7]Bärbel Inhelder and Jean Piaget. *The Growth of Logical Thinking from Childhood to Adolescence.* New York: Basic Books, 1958.

[8]Frank Laycock. "The Flexibility Hypothesis in Reading and the Work of Piaget." *Challenge and Experiment in Reading*: Proceedings of the Seventh Annual Conference of the International Reading Association. New York: Scholastic Magazines Vol. 7: 1962, pp. 241-43.

## Experimental Design

A highly selected battery of variables which had precipitated as predictors in previous investigations at the elementary,[9] high school,[10] or college level,[11, 12]) were administered with necessary modifications to represent samples[13] of about 250 pupils each in grades three through six.[14] These abilities, listening comprehension, linguistic meaning, word recognition, and visual and auditory perception. Although personality, interest, and motivational variables had been included in the previous investigations, factors representing these domains either had not precipitated from the substrata analysis or tests from these domains were not psychometrically suitable for administration at the elementary school level. However, personality, interest, and motivational factors are undeniably important as determinants of speed and power of reading, particularly in individual cases and for certain subgroups.[15 16]
tests encompassed measures of mental

[9]Harry Singer. "Substrata-Factor Theory of Reading: Theoretical Design for Teaching Reading." *Challenge and Experiment in Reading*: Proceedings of the Seventh Annual Conference of the International Reading Association. New York: Scholastic Magazines Vol. 7, 1962, pp. 226-232.

[10]Jack A. Holmes and Harry Singer. *"Substrata-Factor Differences Underlying Reading Ability in Known Groups.* Final Report Covering Contracts No. 438, SAE-8176, and No. 538A; SAE-8660, U. S. Office of Education, 1961.

[11]Jack A. Holmes. "Factors Underlying Major Reading Disabilities at the College Level." *Genetic Psychology Monographs* 49: 3-95; 1954.

[12]The tests came from the following batteries:
D. D. Durrell, and Helen B. Sullivan. *Reading Capacity and Achievement Tests Intermediate Battery.* New York: Harcourt, Brace, and World, 1937.
Arthur I. Gates. *The Gates Reading Survey.* New York: Bureau of Publications, Teachers College, Columbia University, 1960.
Jack A. Holmes. *California Language Perception Tests.* Palo Alto: Educational Development Corporation, Revised, 1962.
J. Kwalwasser and M. L. Dykema. *Kwalwasser-Dykema Music Tests.* New York: Carl Fischer, 1930.
Harry Singer. *Lingustic Tests: A Battery for Elementary School.* Riverside: University of California, Revised, 1963. (Multilith)
L. L. Thurstone and Gwinn Thurstone. *SRA Primary Mental Abilities, Elementary Form.* Chicago: Science Research Associates, 1954.
M. J. Van Wagenen. *Diagnostic Examination of Silent Reading Abilities.* Minneapolis: 1953.

[13]In grades three, four, five, and six there were 122, 128, 140, and 76 boys and 101, 155, 122, and 83 girls, respectively.

[14]The writer wishes to express his appreciation to the Alvord Unified School District, Riverside County Superintendent of Schools Office, and to his research staff at the University of California, Riverside for participating and cooperating in this research project.

[15]Jack A. Holmes. "Emotional Factors and Reading Disabilities." *Reading Teacher* 9, 11-17; 1955.

[16]Jack A. Holmes and Harry Singer. *Substrata-Factor Differences Underlying Reading Ability in Known Groups.* Final Report Covering Contracts No. 438, SAE-8176, and No. 538A; SAE-8660, U. S. Office of Education, 1961.

546.

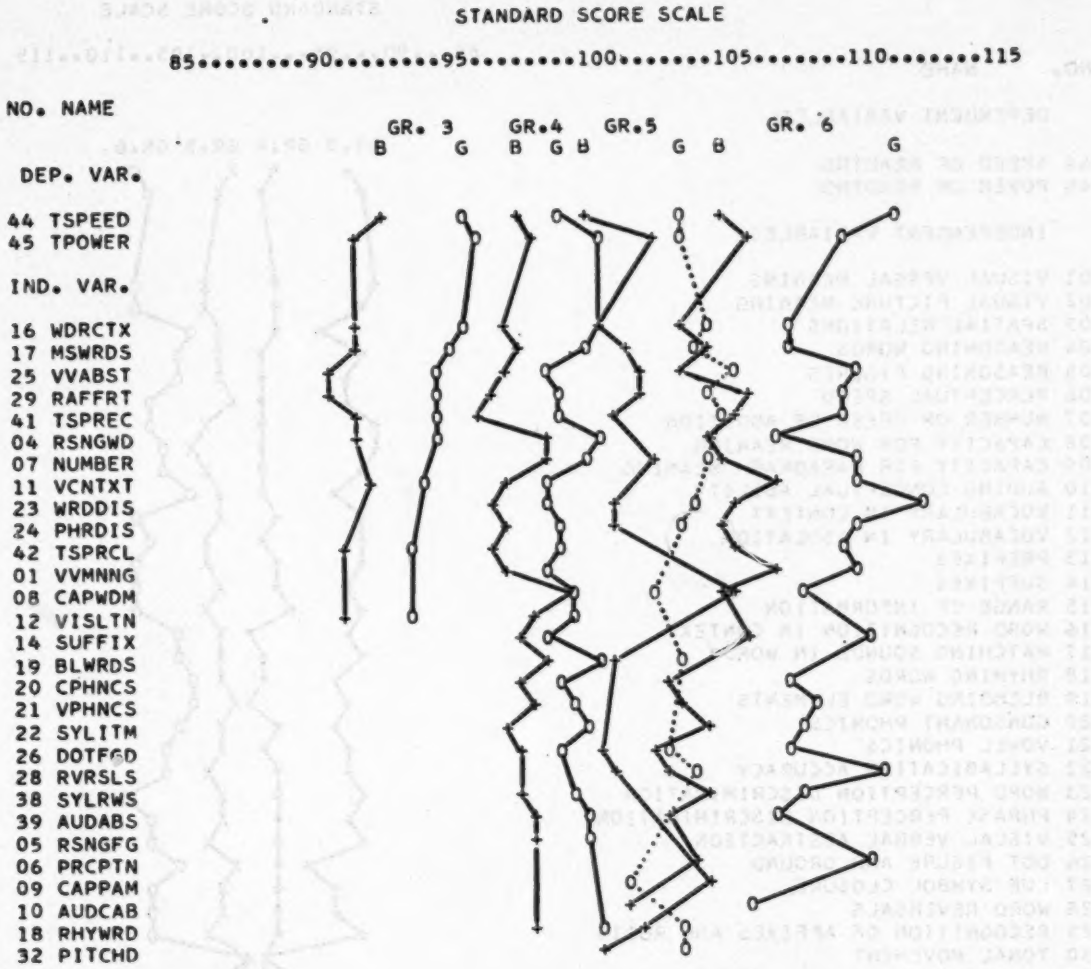



FIGURE 2. PSYCHOGRAPH OF BOYS VS GIRLS IN GRADES 3 THROUGH 6 ON MEAN STANDARD SCORES SIGNIFICANTLY DIFFERENT AT THE FIVE PER CENT LEVEL. SEE FIGURE 1 FOR VARIABLE NAMES REPRESENTED BY ACRONYMS IN FIGURE 2. OMISSION OF PLOTTED POINTS FOR A PARTICULAR VARIABLE AT ANY GRADE LEVEL INDICATES THERE WAS NO SIGNIFICANT DIFFERENCE IN MEAN STANDARD SCORES. LINES WERE PLOTTED BETWEEN POINTS, HOWEVER, TO GUIDE THE EYE OF THE READER.

## Analysis of the Data

The test data on each variable for all 927 pupils in the four grades were transformed into standard scores with a common mean of 100 and standard deviation of 10. Statistical significance of differences between means were next computed for each variable by (a) grade and (b) sex within grades.[17] Mean standard scores were then plotted on psychographs.

[17]Price Stiffler performed all statistical analyses for this investigation on the IBM 7094 Computer at the University of California, Berkeley.

## Results

*Grade three vs. four vs. five vs. six.* Comparison of the psychograph for the average reader in grades three, four, five, and 6, Figure 1, reveals that in almost every variable, except for a few auditory perception variables, there is a significant increment in mean standard scores from grade to grade. Hence, a concomitant of normal improvement in speed and power

FIGURE 1. PSYCHOGRAPH OF MEAN STANDARD SCORES FOR GRADES 3, 4, 5, AND 6. ALL DIFFERENCES BETWEEN MEAN STANDARD SCORES WERE SIGNIFICANT AT THE FIVE PER CENT LEVEL, EXCEPT FOR A FEW AUDITORY PERCEPTION VARIABLES AT CERTAIN GRADE LEVEL INTERVALS.

of reading throughout the intermediate grades is a more or less uniform development of subskills and capacities. These developmental increments for the average reader may result from comprehensiveness of instruction in reading together with a generally uniform rate of cortical development and interfacilitation.

In theoretical terms, the results imply that developmental models of the general working-system of the average reader at least through the intermediate grades can be represented by quantitative increments in subskills and capacities. Such improvement in speed and power of reading may only partly depend upon the ability to mobilize subsystems composed of quantitatively superior elements. Faster and bet-

ter reading during the intermediate grades may also stem from a more effective and efficient organization of subsystems and greater flexibility in mobilizing these subsystems to meet the increasingly more mature purposes of the reader and greater demands of the reading task.

However, a particular pupil's profile may vary somewhat from this relatively uniform pattern of development. Some variation in the individual's pattern may be attributable to normal interindividual and intraindividual differences in a variety of factors, such as asynchronous rates of maturation of mental functions,[18] and these factors must of course be taken into account in designing reading instruction. But, a *significant* departure from the general pattern of development suggests the necessity for an individual diagnosis to determine whether there are causal deficiencies that may be remedied.[19]

*Boys vs. Girls.* In the United States, sex differences in reading achievement consistently favor girls throughout the elementary grades.[20] Even at the reading readiness level, girls on the average score higher than boys.[21] This superiority is maintained from grades two through eight on speed, comprehension, and vocabulary.[22] But, in reading achievement at the elementary school level in Wiesbaden, Germany, boys in general are superior to girls.[23] Although current research findings seem to support an environmental explanation of sex differences in reading, the evidence is not conclusive. For example, the reading development of Wiesbaden girls could have been sufficiently retarded by differential educational treatment or cultural influences to have more than offset any potentially superior biological tendency or rapidity in maturational rate.

Previous investigations have only been concerned with relating causal determinants of sex differences to the criterion measures, speed or power of reading. The question posed for this study is whether such causal determinants, whatever they may be, uniformly or differentially influence development of subskills and capacities that are related to speed and power of reading. To answer this question, boys and girls within each grade level were contrasted on each variable in the test battery.

Mean standard scores on which boys and girls within a grade were significantly different at the five per cent level are depicted in the psychograph, Figure 2. Analysis of the psychograph reveals that at each grade level girls are superior to boys not only in speed and power of reading, but also in many other variables. From grade three through six, there is a tendency towards an increase in the magnitude of differences and in the number of variables on which the sexes differ significantly. At the third grade level, girls are already superior to boys in word recognition, word meaning, and word reasoning variables. Fourth grade girls are not only superior to fifth grade boys on many more variables, but are almost up to fifth grade boys in speed and power of reading. This differential rate of development in reading then appears to accelerate for speed of reading for grades three to six. Although fifth grade girls only approach sixth grade boys in speed and power of reading, their psychograph patterns are quite similar! At the sixth grade level, the mean differences for boys vs. girls in speed and power of reading are greater than at the previous grade levels.

Similarity in psychographs for boys and girls, particularly for fifth grade girls and sixth grade boys whose mean speed and power of reading are almost equal, suggests that the relatively superior progress of girls is not related to differential development of subskills and capacities. Whatever may be the causal determinants of sex differences in reading, they seem to exert their influence after the third grade more or less equally in the domains investigated in this study.

[18] Nancy Bayley. "Consistency and Variability in the Growth of Intelligence from Birth to Eighteen Years." *Journal of Genetic Psychology* 75: 165-196; 1949.

[19] Harry Singer. "Substrata-Factor Theory of Reading: Theoretical Design for Teaching Reading." *Challenge and Experiment in Reading*: Proceedings of the Seventh Annual Conference of the International Reading Association. New York: Scholastic Magazines Vol. 7, 1962, pp. 226-232.

[20] Jack A. Holmes and Harry Singer. "Theoretical Models and Trends Toward More Basic Research in Reading." *Review of Educational Research* Vol. 34: April 1964. (In Press)

[21] Irving H. Balow. "Sex Differences in First Grade Reading." *Elementary English* 40: 303-306, 320; March 1963.

[22] Arthur I. Gates. "Sex Differences in Reading Ability." *Elementary School Journal* 61: 431-34; May 1961.

[23] Ralph C. Preston. "Reading Achievement of German and American Children." *School and Society* 90: 350-54, October 20, 1962.



Although separate analyses for boys and girls are necessitated by differences in their general rate of development in reading, teachers should be cautioned lest they generalize these sex differences in reading to all boys or to all girls. There is, of course, considerable variability and overlap for boys and girls in general reading ability.

## Conclusions

The general working-system for speed and power of reading develops somewhat equally in magnitude throughout grades three to six for the average reader. But, the psychograph for girls is more mature than for boys at the third grade level and tends to accelerate through the intermediate grades, particularly in speed of reading. Whatever causal factors influence sex differences in reading, their influence seems to have been somewhat equal in the psychograph of the average girl in grades three through six. However, variations within each psychograph and differences between rates of development for boys and girls will necessitate separate analyses in determining developmental changes in substrata-factor organizations for speed and power of reading.

177.

Vol. 10, 1965

## 4. Boys' Achievement in Beginning Reading 290,

Jo M. Stanchfield
Occidental College

In the school year 1962-63 a research project in the Los Angeles City Schools investigated the problem of whether the achievement of boys in beginning reading would be affected by a grouping procedure in which the groups were composed entirely of boys. Approximately 550 children in the first grades in the Los Angeles City Schools were taught reading in sex-segregated groups. The schools chosen provided a cross section of socio-economic levels, ranging from lower class to upper-middle class. Eight pairs of first-grade classes were used. In one member of each of the eight pairs, the composition of the classes was arranged so that three-fourths of the boys were enrolled in one class with one-fourth of the girls. The alternate member of the pair contained three-fourths of the girls and the remaining one-fourth of the boys.



The reading lessons for these classes were arranged in the following way: One reading period was scheduled in the morning between 9:00 and 10:00, and one in the afternoon between 2:00 and 3:00. In four of the classes containing a majority of boys the teachers taught reading to groups of all boys in the morning and to mixed boy-girl groups in the afternoon. In the remaining four classes, the teachers taught reading to groups of all boys in the afternoon and to mixed boy-girl groups in the morning. This same procedure was carried out in the classes containing a majority of girls.

At the beginning of the school year, the children in the study were given the Harsch and Soeberg Survey Test of Primary Reading Development, Form A. An intelligence quotient was determined for each child through the use of the Detroit Beginning Primary Test. Further, the teachers collected reading readiness data with a readiness checklist, and home and family background information with a sociological data sheet. An alternate form of the Harsch and Soeberg Test was administered in June at the end of the second semester.

With the data from these tests, an analysis of variance was done for each of the post-test scores and the total post-test with no significant "F" ratios found in reading achievement at the end of the first grade. The difference between the total post-test scores and the pre-test scores (reading growth) was treated with an analysis of variance, and again no significant results were found. These statistical analyses of reading achievement and of reading growth did not show that boys taught alone gained significantly more in achievement or in growth than did the boys taught in heterogeneous sex groupings.

As a group, the girls achieved significantly more than the boys on the post-test. The mean for the girls was 55.9, and that of the boys, 49.2. This showed a significant difference of 6.7 in the reading achievement of the girls. Moreover, the girls demonstrated significantly greater reading growth than the boys (growth being measured as the difference between the pre-test and the post-test scores). The means for the girls on the pre-test was 25 and for the boys, 20.7. The means on the post-test were 67 for the girls and 60 for the boys. It appeared that during this first year of learning to read, the gap between the boys and girls had widened considerably. The analysis of the data demonstrated conclusively that the girls not only achieve more by the end of the first year, but that girls actually have a greater growth in reading during this highly important first grade.

Although the main effect of the research showed that boys did not learn to read better in sex-segregated groups, the teachers readily admitted in a series of individual interviews that they had found basic areas of difference in the learning patterns of boys and girls. These differences from teacher observations in all-boy and all-girl groups were summarized in seven areas.

*Activity Levels.* The teachers, when describing their teaching in groups of all boys, made such statements as these: "Boys are so over-whelmingly active, so frighteningly energetic, so terribly vigorous, so utterly strenuous." "It's so hard for a six-year-old boy to keep himself occupied with reading a book." "Boys tend to wiggle, twist, push, turn, shove, and in general bother each other instead of reading." "Girls are so quiet and controlled—they can sit quietly and read a book." "Girls are easier to teach—so ladylike and easy to handle." The differences in the activity levels and patterns of six-year-old boys and girls were very evident to the teachers in the study.

*Verbal Facility.* The teachers in the all-boy groups were amazed to find out that boys verbalized so poorly, speaking in incomplete and fragmentary sentences. The boys were not as fluent as the girls; they had more difficulty in speaking clearly and easily. The teachers reported that having the girls present in the class had given them the erroneous impression that the boys were speaking and participating as much as the girls.

*Auditory Discrimination.* The boys' inadequacies in articulation, enunciation,

550.

and pronunciation led to greater learning difficulties in phonetic analysis skills. Teachers reported that the boys had much more trouble than the girls in making auditory discriminations and hearing common phonetic elements. Many times, it would take the boys eight or ten lessons to learn and recognize sounds that the girls could identify in three.

*Listening Skills.* In this area, the teachers declared that the boys were not so good "listeners" as girls. Boys appeared not to listen so intently and carefully as girls. This might perhaps be related to the greater difficulty the boys evidenced in hearing all the sounds and in making fine discriminations. All of the teachers stated that the boys listened more effectively when they were keenly interested. They also tended to listen more intently when the teacher utilized more than one of the five senses.

*Attention Span.* The attention span of the boys, in general, was found by the teachers to be shorter than that of the girls. The majority of the teachers expressed the viewpoint that the attention span of the boys varied between 12 and 15 minutes, while the girls could attend for 20 to 25 minutes. However, several teachers qualified this viewpoint with the statement that "It depends on the activity. Boys can pay attention for a long time if they're doing something active and dynamic, either mental or physical."

*Goals and Motivations.* The teachers in the research stated that the girls were easier to teach than the boys because the girls were eager to please the teacher, their parents, or some other adult figure. They were more quickly motivated by praise to work hard and do their best at a given task. Some of the teachers said that the boys could be more enthusiastic, more curious, and more tenacious than the girls in trying to solve a problem or learn something in which they were interested. Generally, the boys in the study were less anxious to please the teacher, less motivated to develop good work habits, less desirous of assuming responsibility, and less self-motivated in learning to read. Perhaps, as suggested by Gates, the role concept of the boy in the culture has had less goal-direction for the reading act than for the girl and more motivation for physical involvement and activity.

*Interests.* The teachers of the all-boy groups contended that they found it difficult to interest boys in subject matter that did not have the appeal of the unusual and the dynamic. The instructor had to be really "on his toes" to utilize the boys' demand for action and excitement. Teachers of the all-girl groups reported the ease with which they could hold the interest of girls in a variety of subjects. This view has been supported by the interest studies of Lazar, Terman and Lima, Rankin, Thorndike, Norvell, and Stanchfield. These studies have shown that boys have special interests and do not like the so-called "girlish" books, but that the girls not only like their own special books, but also all of the so-called "boys' books."

## Continuing Experimentation

*Materials of Instruction.* The second year of this study, designed to analyze the factors which affect boys' achievement in beginning reading, covered the school year, 1963-64. This research was concerned with materials of instruction used to teach beginning reading, e.g. pre-primers, and first grade readers. Materials especially written to capture boys' interest and attention were used with the experimental groups of boys and girls to note the effect on boys' reading achievement. The eight teachers in the experimental groups used a series of readers about an atomic submarine and the exciting adventures of a sailor named Jack, his pet parrot, Bluebell, and his friend Eddy, a little boy of six. The control groups used the basal series adopted as state texts in California.

The design for the research project was similar to the one described for the preceding year. To lessen the bias of the teacher factor, each teacher taught an experimental and a control group. This necessitated two reading periods a day, one in the morning between 9:00 and 10:00 and one in the afternoon between 2:00 and 3:00. To decrease the bias of the time factor, one-half of the experimental groups and one-half of the control groups were taught in the morning period; and the remaining halves of the groups were instructed in reading in the afternoon.

As in the research project in the preceding year, the children in the study

were given the Harsch and Soeberg Survey Test of Primary Reading Development in September. The Detroit Beginning Primary Test was used to determine an IQ score for each child. The teachers also collected reading readiness data and sociological background information. An alternate form of the Harsch and Soeberg Test was given in June at the end of the school year to ascertain the reading achievement of the children and the reading growth, the difference between the pre-test and the post-test.

The statistical analysis of the data revealed that the boys in the experimental group achieved more in reading than the boys in the control groups, but not significantly so. The mean for the experimental boys was 57.0 and the mean for the control boys was 54.6. The second analysis showed identical results with the growth scores. The mean for the experimental boys was 21.5; and for the control boys, 28.9. The means were again in the expected direction but not significant.

Individual interviews with the teachers in the research indicated that the teachers enjoyed using the experimental readers which proved to be of high interest to boys, but that they considered them too difficult for beginning reading because of the rapid introduction of new words and the lack of sufficient repetition of the words. (The pre-primers, primers, and first-grade readers had been specifically written for remedial instruction in the middle grades.) The teachers reported that they needed a variety of reading materials to supplement the boy-interest-oriented series and give added practice and reinforcement to the printed word. As a result of the teachers' suggestions, a workshop was conducted in the summer of 1964 to develop specific instructional materials for the third year of the research, 1964-65.

## Continuing Research

*Use of a Variety of Materials of Instruction.* The third year of research, 1964-65, continued to analyze the factors which affect boys' achievement in beginning reading. The study involved eight elementary schools, fourteen teachers, and approximately 500 children in the Los Angeles City Schools. As in the two previous years, these schools covered a broad range of socio-economic levels from high-middle class to lower class populations. The teachers continued to use a series of readers about an atomic submarine called the Shark and the exciting adventures of a sailor named Jack. In addition to the regular reading books, a variety of materials developed in the summer workshop in 1964 have been added to the instructional program. These materials include the following items:

a. Pre-reading instructional aids to develop speaking and listening skills, such as flannel-board stories and puppets to develop specific speech sounds.
b. Individual flannel boards and blackboards with appropriate follow-up material to involve children in active participation in speech and listening situations.
c. Daily follow-up work, which the children do independently, to emphasize and give practice in the reading skills taught in the directed reading lesson with the readers.
d. Transcriptions for each story in the reading books with appropriate follow-up practice material, to give opportunity for rereading the stories in the reader as an independent activity and to develop skill in listening and following directions.
e. Colored slides with picture and context used by the teacher in a directed reading lesson or independently by the children, to give practice in the basic words in different stories and to vary the stimulus of the printed word.
f. Study prints, paralleling activities in the readers, to enable the teacher to develop the vocabulary of the readers of an auditory situation and to provide incentives for children to dictate their own stories in a reading-through-writing approach.
g. Short stories and "rewrites," using the basic vocabulary of the readers in new situations, to allow the child to read and illustrate.

It is hoped that when completed this research will indicate ways of increasing boys' reading skills, and thus, eventually help with the problem of the non-reader in the high school who becomes a school dropout and a jobless youth. Meanwhile, each additional research study may uncover new approaches to solve the disparity in boys' reading achievement.

552.

178.

## 2. New Approaches to Teaching the Study Skills

62. EVELYN S. THOMPSON
University of Houston

NO MATTER HOW high we carry the banner of education as a profession, the criticism that educators get lost in a maze of terminology is well founded. Such is the case when one considers the use we make of the term "study skills."

The word "study" is defined as "the effort to learn by reading or thinking; a careful examination; investigation; deep thought; reverie; to think out; to think intently; meditate."

The word "skill" means, according to lexicographers, "ability gained by practice and/or knowledge; expertness." Common synonyms are "facility" and "proficiency."

In the literature on this topic, one finds, for the most part, listings of various approaches to locating information on a topic; evaluating what is found in terms of accuracy and usefulness; selecting and organizing related ideas, often in complex patterns, so as to achieve a given purpose. These purposes range from gathering a body of information and sensing implications to developing generalizations and forming judgments.

Few writers have taken into consideration the basic abilities essential to successful performance of any of the above tasks. However, we are not in total darkness. During the past few years, reference has been made to the urgent necessity for a re-examination of the term "study skills" and a fresh approach to the problem of helping boys and girls develop efficiency in performance. As early as 1952, Arthur I. Gates opened this question in an address to the New England Reading Association when he said:

> In summary, learning in the content subjects involves certain basal reading skills arranged in various combinations, adjusted to a particular purpose and operating under a general strategy of attack. . . . Success in the content subjects depends greatly upon the ability to read selectively and to think critically during the process of reading.[1]

Let us go back to the definitions of "study," each of which emphasizes thinking. Two significant questions are implied in these definitions. First, "What is reading if not a thinking process?" Second, "Should we not teach boys and girls how to think before we plunge them into situations where command of intricate thinking processes is essential to successful performance?"

Consider the first question, "What is reading if not a thinking process?" Tinker and McCullough define reading thus:

> Reading involves the recognition of printed or written symbols which serve as stimuli for the recall of meanings built up through past experience, and the construction of new meanings through manipulation of concepts already possessed by the reader. The resulting meanings are organized into thought processes according to the purposes adopted by the reader. Such an organization leads to modified thought and/or behavior, or else leads to new behavior. . . .[2]

Others have defined reading with emphasis upon the thinking processes involved. As early as 1930, John Dewey warned that readers who had not learned to judge, discriminate and choose were prepared only for "new modes of intellectual servitude." Last year, in Detroit, Russell Stauffer urged his audience "to prepare pupils to think critically about ideas presented in reading material by teaching reading as a thinking process."

From the very first step of word identification to the final reaction to established meaning the act of reading requires rapid-fire mental operations using combinations and interactions of a variety of reading and thinking abilities. The final test of a skillful reader is that he be able to think as he reads and thus broaden his vision, quicken his senses and lift his spirit.

Now, to the second question, "Should

[1]Arthur I. Gates. "Reading Abilities Involved in the Content Subjects," *Readings in the Language Arts*, edited by Verna D. Anderson and others. New York: Macmillan Co., 1964, 350-364.

[2]Miles A. Tinker and Constance McCullough. *Teaching Elementary Reading*. New York: Appleton-Century-Crofts, 1962, 13.

553.

we not teach boys and girls how to think before we plunge them into situations where command of intricate thinking processes is essential to successful performance?"

Read the how-to-study handbooks. Examine the suggestions for study in currently used textbooks. Observe the classroom teacher in action as she makes "package" assignments, reduces reporting-and-discussion periods to question-and-answer sessions, and evaluates learning with tests on facts the pupils can recall. Memory—the lowest level of mental activity—dominates the entire situation.

Ideas presented by Russell in his scholarly treatise, *Children's Thinking,* should be the base of operation for every classroom teacher. Each experience planned to promote study and learning should be analyzed in terms of the opportunities offered the child-learner to engage in thinking activities. In the early school years, or even before he enters school, the child should experience *planned* perceptual and associative thinking. Recent experiences of this writer working with culturally deprived children have opened new vistas of opportunities for these experiences in the Headstart Program.

Encouragement of curiosity and inquiry lead to discovery; thus, new concepts are developed and old ones expanded. Gradually, the child's mental machine becomes synchronized and he develops the momentum necessary for problem solving. Here, he must weigh each idea, comparing, contrasting, judging—as he searches for the truth. This critical-thinking experience leads him to the highest level—the creative phase. Now, he is ready to push forward on an individual basis.

In *The Mature Mind,* Overstreet described this process as follows:

> The building of a mind can begin in earliest childhood and can continue throughout all the young years. It requires simply that we accept the fact that a mind functions when it makes its independent estimate of things; draws its own conclusions. . . . Most of what we have been accustomed to call education has been chiefly an enlisting of the memory. Building a mind means confronting it with problems to be solved; letting it search out the relevant evidence; letting it learn to weigh this evidence, come to a conclusion and test that conclusion. The whole process is worlds apart from the mere acceptance of statements on the say-so of textbook and teacher. (pp. 251-254)

The miracle of the human mind is that, given the right fuel, it functions. Children want to know until the school environment completely squelches their curiosity. At the very time that intellectual curiosity should be increasing, our children lose their zest for inquiry, exploration, and experimentation.

They must have constant refueling to stimulate curiosity and opportunities to seek the truth which is the outcome of a healthy skepticism. Free-wheeling intelligence is the result.

What are the implications for the teacher? Her problem is to protect the spirit of inquiry, to find a balance between over-stimulation and dull routine, to avoid "pat answer" situations and meaningless emphasis on trivialities.

The classroom environment must reflect the dynamics of democracy in teaching: cooperative planning to establish purposes, task involvement, and faith in and respect for individuality.

In summary these five suggestions seem to be important:

1. *Develop the arts of the mind—curiosity, inquiry, skepticism, discovery, and imagination.*
2. *Focus on the thinking processes necessary in study-learning activities.*
3. *Use pupil-teacher planning to pinpoint present knowledge and to establish purposes for further reading and study.*
4. *Free discussion periods from restrictions to critical and creative thinking.*
5. *Become a master in the art of teaching by developing skill in use of leading comments or questions to guide a child's mind as he moves toward discovery of a new idea.*

There is nothing new about any of these ideas, except perhaps to a few individuals. However, constant refinement of teaching techniques does produce fresh approaches and new insights into the learning problems of children.

Vol. 10, 1965

179.

30.

# 2. Developing Advanced Word Perception Skills

DIANA UMSTATTD
Saginaw Public Schools, Michigan

"TEXAS, California, Georgia, Utah, New York, New Jersey, Pennsylvania . . . New Hampster," said Patty as she quickly read a list of the names of the states. To the last response the teacher whispered, "New Hamp*shire*," and hurried on to the next student. Then the teacher stopped. Here it was again, "New Hamp*ster*." The second student, and also a third one, pronounced it the same way. Why the errors? What must the teacher do?



## The Need

Boys and girls at the upper elementary level are interested in learning about hundreds of different things. They seek much of their information from printed materials. This, in turn, demands reading skills that are efficient for their many needs and interests. It requires word perception skills which will enable them to read, with ease, about dozens and dozens of topics, in various kinds of materials, and for numerous purposes. It means that the classroom teacher must teach perception skills that will meet these challenges.

## A Balance Theory

In Jerome S. Bruner's book, *A Study of Thinking*,[1] he reported that the capable successful subjects in his experiments selected strategies for operation which would enable them to maintain a balance of informational intake, cognitive strain, and risk, commensurate with the task. It seems to us that this is also true of successful, ambitious readers in the upper elementary grade levels. They want to "look at" and to "think about" words just long enough to get that information which, if combined with other available information about the same words, will enable them to read the material at hand, for the specific purpose of the moment. The amounts of informational intake, of cognitive strain, and of risk will vary with the student, the topic, the kind of material, and the specific purpose. We shall consider this balance of benefits to the students as we discuss the development of advanced word perception skills.

## The Advanced Word Perception Skills

An inspection of the teacher's manuals of a few series of basic readers indicates that, by consensus, the major advanced word perception skills are: phonetic skills, structural analysis skills, syllable phonics, dictionary skills, and abilities to use certain contextual clues.

The methods of teaching these several skills and the status given each one varies somewhat from one series of readers to another. In short, the authors plan to use a balance of informational intake, cognitive strain, and risk that is conducive to the development of their major purposes. The ratio of the components of a given program is in agreement with the respective definitions of reading.

## The Development of the Skills

It is not our purpose to discuss the skills program of any series of basic readers nor the philosophy of the author(s) of any series. Instead, we want to observe Patty and her friends as they read to meet their numerous needs and interests. Which skills do they use, and under what circumstances? Are certain skills high on their priority lists, or do they shift freely from one skill to the other as the demands change?

First, let us return to Patty and the list of names of the states. She knew California, Pennsylvania, and Utah, but she said New Hamp*ster* instead of New Hampshire. Why?

Patty recognized the category—states in the United States. She was familiar with the names, but did not recognize them as sight words. She rapidly used a combination of skills to make initial attacks upon the words. Her background of information hastened her completion of the identification of the words, with one exception. Why did she say "New Hampster?" We believe that she had been hearing it that way, and our hunch was supported by her two peers who made similar errors. The balance of benefits of a particular strategy was at work, and the informational intake was insufficient to compensate for an unknown risk, an error in aural perception in an earlier experience. A new strategy had to be selected and a new balance had to be maintained for the identification of New Hampshire. Patty was equal to the task. She knew where to add a step and how to fit it into her sequence of decisions. Her word perception skills were

[1]Jerome S. Bruner, Jacqueline J. Goodnow, and George A. Austin. *A Study of Thinking*. New York: Science Editions, Inc., 1962.

555.

adequate for the identification of the word.

As we observed Patty and her friends from day to day in various circumstances and with many materials we noticed the preparation that went into their reading. They were constantly aware of their purposes. They also took into account all the information which they could bring to the situation. They anticipated words and clues for recognizing them. They considered the type of material to be encountered. Last, but not least, they were alert to the quality of thinking that they must do. They used all the word perception skills as they read, but were versatile in the timing of the use of each. They consistently matched personal strengths and weaknesses with the specific task at hand.

Some children may learn to shift from skill to skill freely, without direct guidance. Others are like Wayne, who needed much help. Wayne's teacher assisted him in reading arithmetical story problems by teaching him at which points precision was essential and at which points generalizations would be acceptable. For example, he substituted names of friends for the proper names but carefully analyzed all other words within the questions.

## In Summary

We recognize that children are faced with voluminous amounts of printed materials. There is neither time nor energy for reading all of it. Yet they must learn much of the content. This demands that they encounter many new words each time they shift to a different topic or a different material. New words demand efficient word perception skills. We have discussed efficiency in terms of pupils, needs, materials, and purposes. We have also discussed efficiency in terms of a balance of benefits which the reader receives from the particular strategies he uses. The choice of strategy may well be considered as the foundation of the development of adequate word perception skills at the upper elementary level.

556.

180.

Vol. 10, 1965.

148.

## B. UPPER ELEMENTARY LEVEL

### 1. Building Skills in an Individualized Reading Program

ELAINE C. VILSCEK
University of Pittsburgh

IN A CURRENT issue of the magazine, *Saturday Review,* I found the following short verse by Jeannette Nichols that seemed pertinent to the title of this topic. The verse is called "A Man I Know" and is as follows:

A man I know
is building
a motorcycle

and has no legs

and we are begged
to listen how the motor runs

and we who listen
are building a sky

and have no wings

An analogy can be drawn between the man described in this verse and the group of behavioral psychologists who have built the generalization that individual differences in learning exist. These behaviorists have begged that we listen. But, it is evident that the substantial limbs for completely individualized instruction are unavailable. In reading instruction, we have proclaimed that every child's needs must be considered and met. It seems we have built our sky but have not completed the many wings that could carry individual children to pinnacles so often called maturity in reading skills.

Skills lists, varying in degrees of detail, as well as innumerable suggestions and materials for skills development have appeared over the years. In order to evaluate the progressive effects of these various kinds of programs featuring individualized skills training, many experimental studies have been conducted. Yet, an apparent gap between the established need for individualized skills development and completely effective classroom practices remains unbridged.

Much of the literature and related research findings on individualized reading programs has been addressed with an emphasis toward either the limitations or the apparent values of such approaches, or both. In some of the professional publications, perceptive questions have been posed. In others, current research on this topic has been reviewed and evaluated to determine whether studies have met strict experimental criteria. To focus further upon some fundamental issues of building skills in an individualized reading program, this paper will include consideration of the following:

1. The Chasm Between Premises and Practices
2. Progress Toward Bridging the Gap

557.

3. What Next, in Teacher, Pupil Practices and Research

## The Chasm Between Premises and Practices

Within the conceptual framework of various individualized reading programs throughout the United States, skills building receives different degrees of emphasis and may be accomplished through many different means. At one extreme are advocates who maintain that skills are acquired quite naturally by pupils when motivated by a genuine interest and an awareness of personal needs. Consequently, pre-determined sequential instruction in skills by the teacher is de-emphasized. Other proponents of this program, at the opposite pole, recommend very detailed, highly structured, intricately scheduled plans for skills development. Accordingly, varieties of instructional materials are recommended for introducing, developing, and re-inforcing specific skills outlined.

Whether the teacher assumes the role of an observer, encouraging independent insights, or of a didactic director, devising a formula for each child's successes, a number of basic premises loom largely. In any individualized program, the teacher should understand the psychology of learning as related to skills processes in reading. Yet studies, such as those by Adams[1] and Emans,[2] give evidence that reading teachers expressed and demonstrated their insufficient understandings.

If teachers are to observe and guide pupils as they seek satisfaction of personally internalized reading needs or to meet needs of pupils through more direct techniques, the adequacy of evaluative tools or procedures is also of essence. Traxler[3] contends that current evaluative tools and techniques in reading are inadequate since the very nature of the reading act involves associative thought processes hidden within each child's cerebral complex. Consequently, there is little evidence or means by which we might conclude whether or not pupils employ preferred sets of subskills in specific reading tasks such as word recognition or comprehension.

In the area of reading comprehension, for example, Kerfoot,[4] illustrated the ambiguity of various tests of comprehension that purport to assess specific thinking skills. While Sipay,[5] using selected reading survey tests, reported findings that warrant caution in estimating and interpreting functional reading levels on the basis of standardized instruments.

Though these limitations exist, teachers are confronted continually by occasions and situations in which evaluations should be made. The diagnostic facility of teachers to interpret and apply findings, inevitably confounded by the limitations of instruments for acquiring pupil data, has also been examined. As indicated in investigations by Adams,[6] Emans,[7] and others, teachers again verbalized and displayed weaknesses in determining pupils' needs in skills. What then can be expected of teachers as they conscientiously try to resolve questions about the kinds and degrees of skills emphasis or kinds of pupil insights in skills development to be expected?

Individual growth toward maturity in the appropriate application of reading skills is also related to the quantity, quality, and variety of available instructional materials. Budgetary restrictions, teachers' time in becoming acquainted with materials, teachers' skills in determining the worth of specific materials, classroom organizational procedures, and effectiveness of teaching techniques are other factors that presently could preclude essential premises from becoming completely effective practices.

Though this chasm between premises and practices exists, one cannot assume that individualized reading is potentially a less promising instructional innovation. Many of the principles considered and problems encountered in individualized

[1]Mary Lourita Adams. "Teachers' Instructional Needs in Teaching." *Reading Teacher,* XVII (January, 1964), pp. 260-264.
[2]Robert Emans. "Teacher Evaluations of Reading Skills and Individualized Reading." *Elementary English,* XXXXII (March, 1965), pp. 258-260.
[3]Arthur Traxler. "Values and Limitations of Reading Tests." *New Perspectives in Reading Instruction* (edited by Albert Magurksewicz), New York: Pitman Publishing Company, 1964, pp. 349-356.
[4]James Kerfoot. "Problems and Research Considerations in Reading Comprehension." *Reading Teacher,* Vol. 18, No. 4 (January, 1965), pp. 250-256.
[5]Edward Sipay. "Comparison of Standardized Reading Scores and Functional Reading Levels." *Reading Teacher,* XVII (January, 1964), pp. 265-268.
[6]Mary Lourita Adams. *loc. cit.*
[7]Robert Emans. *loc. cit.*

558.

reading programs are basic even when other instructional approaches are employed by teachers.

**Progress Toward Bridging the Gap**

Among the most promising signs of growth toward understanding the dimensions of reading as a skills process is the attention being given to research on behaviorism in reading and to investigations of the relative impact of specific skills that pupils employ. Behavioral research in reading is presently in its infancy but could lead to some new insights about the process through an analysis of operant and respondent reading behavior. Investigators primarily associated with this type of research include Arthur Staats, James Evans, Alton Raygor, Donald Cleland, and O. K. Moore.

Another interesting realm of research involves the identification of clusters of sub-skills which account for pupil differences in reading. In an account of his study, Singer,[8] reported specific variables, at each intermediate grade level, that contributed to pupil variance in speed of reading. He noted, too, that speed of reading undergoes an organizational change from predominance of variance attributable to visual perceptual abilities at the third grade level to more equally distributed variance in both visual perceptual and word meaning skills at the sixth grade level. In addition, Robinson[9] proposed a technique that could be used in further analysis of the relative utility of word attack skills. Through the substrata factor theory, used by Singer, and Robinson's techniques, a number of clues and questions about the significance of specific skills in an individualized reading program can be obtained.

As a result of work related to the validity and reliability of standardized tests, Cattell[10] proposed a number of new parameters that shed light on improvement in diagnostic instrumentation. These could be incorporated in testing operationally defined skills. Among the parameters proposed are: a coefficient of test efficiency which reveals validity per minute of testing time; an index of test universality to test consistency and transferability across cultural, racial, social, and other population differences; and a formula for test utility in terms of breadth, frequency of significant prediction, range of criteria which can be predicted, and capacity to predict from present to transformed conditions. Cattell's recommendations are surely steps toward possible progress in skills evaluations.

Continually appearing on the reading scene are new instructional materials that are designed for reinforcement or independent acquisition of skills. Many of the materials are auto-instructional in type and can be categorized as programed devices or self-corrective, directive kits or workbooks. The availability of such material makes the task of individualized skills development in an individualized reading program an easier one.

Other accomplishments, encompassed often under the classification auto-instructional, are those in computer technology. When voice activation is attained, computer potential as an instructional tool for skills building in individualized reading programs could be unlimited. Even now, information about pupil personality characteristics, levels of achievement, and abilities could be re-organized by computers to supply teachers daily with data pertinent to skills development in reading.

But, how far in the distant future is the moment when we have sufficiently bridged the gap and can scientifically test individualized reading as an instructional approach to skills building? It is quite evident that the answer to this question rests upon whether or not we will ever be able to scientifically chart a progressive profile of skills components that are indispensable to each pupil's unique apex of reading maturity.

**What Next in Teacher, Pupil Practices and Research**

Despite the complexity and breadth of the task at hand, some suggestions for effecting further progress through individualized reading are as follows:

1. *Added emphasis should be placed*

[8]Harry Singer. "A Theoretical Model of Reading Development in Grades 3 to 6," Paper Read at the Annual Convention of the National Council of Teachers of English, Cleveland, Ohio, November, 1964.

[9]H. Alan Robinson. "A Study of Techniques of Word Identification," *Reading Teacher*, XVI (January, 1963), pp. 238-242.

[10]Raymond Cattell. "Beyond Validity and Reliability: Some Further Concepts and Coefficients for Evaluating Tests," *Journal of Experimental Education*, Vol. 33 No. 2 (Winter, 1964), pp. 132-143.

559.

*upon the functional application of skills as pupils seek information and pleasure through reading.* It is recommended that teachers begin to view some thresholds of pupil efficiency on the basis of operational manifestations of skills.

2. *Through "in-service educational methods," efforts should be guided in the development, identification, or perusal of boundaries for semi-structured multi-leveled, multi-dimensional instructional guides.* Such guides to instructional organization and implementation, though subject to modification per individual pupil, can be designed to insure some instructional stability. On the basis of a workable philosophy, instructional guides might represent broad topical interest organization and include suggestions for optional multi-leveled, multi-dimensional instructional and evaluative activities and materials. Furthermore, teachers should be encouraged to evaluate and appropriately incorporate research findings in their instructional planning.

3. *Recognition should be given to the role of reading as an art of communication.* Man has developed a highly complex culture partially as a result of what he has read. But, major contributions to society's progress have also been made through listening, speaking, and writing. If pupils are to use reading as a tool for communication, an integrated curricular experience in communication is warranted.

4. *Teachers should take advantage of the interrelationships in the language arts and the transfer of learning that can occur.* The language arts may be viewed as theoretically fused by continuous channels of language facets that do lend to some learning transfer. Listening, speaking, writing, and reading skills are encompassed under the following: perceptual-conceptual development, mechanics, comprehension, study techniques, physiological functioning, aesthetic or cultural appreciations, and functional linguistics. For example, skill in identifying one's learning purpose is of prime importance as pupils listen, speak, write, and read. This study technique, referred to as one of the language facets, channels learning transfer through all four areas of the language arts.

5. *Finally, caution must be the watchword as research is designed and findings related to individualized reading programs are interpreted.* The danger of falling prey to personally engendered enthusiasm is great and has resulted in too many unscientific, subjective interpretations and conclusions.

We may speculate that in the next decades skills building in an individualized reading program will be colored by a better understanding of pupils and processes. Undoubtedly, this period of time could be filled with the excitement of discoveries that span the present distance between an established need for individualized skill development and effective teacher implementation in an individualized reading program.

560.

181.

Vol. 9 , 64

## 2. Reading Skills or 114. Language Skills?

ROSEMARY E. WAGNER

THERE HAS BEEN, over the years, a curious and persistent dichotomy between educators concerned with teaching children to speak and write and those whose concern was teaching children to read. The prodigal waste of motivation and reinforcement which resulted from this approach to reading instruction has finally been realized. Entire reading conferences, such as the Chicago 1963 Conference on "Reading and the Language Arts," are focused upon the interrelationship of language skills and the teaching implications of this interrelationship for reading instruction

I should like to consider, briefly, one aspect of this interrelationship, viz., to what extent the comprehension skills involved in reading are the same as, or different from, the comprehension skills children are called upon to use in listening and speaking situations.

Fries[1] remarks that he would be the last to disagree with the reading experts when they press for the cultivation of a whole array of techniques involved in understanding, thinking, reflecting, imagining, judging, evaluating, analyzing, reasoning, and in making social judgments. Nor would he disagree with their efforts to stimulate and strengthen these abilities through reading. He contends, however, that this *use* of *reading* does not constitute the *process* of *reading*. He notes that these abilities are and must be developed through uses of *language* and that indeed, they have all been developed by people unable to read.

We could easily become involved in a discussion of "process" versus "use" of reading. I think it more valuable to pursue further this matter of the power of language, oral or written, to stimulate the mind's activity and the mind's use of language to sort out thoughts and reactions and organize experiences.

From his earliest years the child's mind is stimulated by language as he responds to visual and auditory symbols of communication and strives both to understand and to be understood. However, unconsciously, he is looking for the main idea being presented to him as his mother gives a direction or explains something to him. He is seeking clues to meaning as he watches her face, follows her hand movements, listens to the intonation and stress of her speech. Having "gotten the message," he reacts; thinks through the situation; compares it to a previous experience; considers possible alternatives of response and selects one.

In the young child, these mental and linguistic activities are largely intuitive. As he matures, as his reservoir of experience deepens, his use of language for understanding his world and communicating with the people in it becomes conscious and refined. Day in and day out, in school and out of school, his mind is activated by the speech and behavior of those around him or who reach him through the mass media. He learns to listen purposefully for main ideas, to seek, relate, and evaluate supporting details. He is better able to read between the speaker's lines; to look for auditory and bodily clues to the "meaning behind the meaning." His mind accepts, questions, or rejects conclusions, using language as the medium of thought.

If we accept this description of a child's ongoing interaction with his environment, we are, in effect, agreeing that distinctions between listening comprehension and reading comprehension are either

[1]Charles C. Fries. *Linguistics and Reading*. New York: Holt, Rinehart and Winston, Inc., 1963.

561.

artificial or, at least, greatly exaggerated. The main distinction between them appears to lie in the use of written symbols in reading as against the auditory symbols of speech to stimulate mental activity and linguistic response. It follows, therefore, that the child has simply to use these same skills of oral language as he responds to the written symbols of reading material. Is it really as simple as all that or are there other factors at work that must be recognized in an effort to identify reading skills with language skills?

Last fall, Sir James Pitman, designer of the Initial Teaching Alphabet, spoke to a conference in New York City. You may or may not be enthusiastic about I.T.A., but I think you will be interested in an observation he made in relation to this matter of oral language and reading skills. He referred to Piaget's work with young children and to his belief that the perception and analysis of auditory symbols are easier for children than the perception and analysis of visual symbols. Sir James then noted the clues to meaning, implications, relationships that are generally present in oral language situations but lacking in silent reading activities. He called these clues of bodily action, facial expression, voice intonation, etc., a "symbolism existing apart from language." He believes that adults frequently mistake a child's correct response in an oral language situation as resulting from language comprehension when, in fact, the words themselves conveyed the least part of the meaning.

He considered, also, the factor of "immediacy," in oral language situations versus the comparative remoteness of words on the printed page. Pitman believes that words heard by a child, immediately in relation to a personal situation—the child asking a question or making a request about a matter of concern to him, the adult responding—are more significant and meaningful than words he reads involving other people, times, and places.

This observation seems to suggest that though reading skills are indeed language skills, oral language is more than the words heard and responded to. The inability of the printed page to capture the human dynamism of face-to-face oral language communication must be reckoned with in any identification of language and reading skills.

562.

182.

**b. Changing Concepts of Reading Instruction in the Development of Basic Skills**

32. JOSEPHINE B. WOLFE

As reading "maketh the full man," so does the use of basic reading skills maketh the reader. This we should remember when we review "the old," try "the new," and attempt to preserve both.

Some critics cite that the high per cent of reading failures is due to lack of interest as opposed to ineffective development of basic reading skills. *This is not true.* There is no "either-or" cause or cure for reading ills. Though we may have sundry interests, no one can deny that we enjoy doing that which we can do with a degree of success. The interested pian t, who has not de-



was read, but to how fast one read it. Although reading was generally assessed by "solo" or "barber shop" reading, standardized tests of factual comprehension, word recognition, and speed of reading were used to evaluate achievement, to survey progress, and to diagnose needs. From these discoveries, remedial classes "bubbled up" country-wide and those familiar with the reading jargon capitalized on the term, "individual differences."

The *intrinsic method* of learning to read and the *analytic method* of learning words next took their place on the time line of reading progress. Emphasis was more on meaning and the broader objectives of reading than on the mechanics. Unfortunately, many teachers interpreted this to mean "that to use phonics was to commit a sin." The use of standardized tests and the term "individualized instruction" became increasingly popular jibberish among the reading clientele.

*All silent reading—no oral reading* was the next innovation! Of course, this highly mechanistic and unrealistic approach had a short life!

Viewing the reading scene in retrospect, we explored—we pioneered. Growth has been obvious. But, what of the reading scene today? Are we resting in complacent glory of the past? Are we bringing fresh and penetrating insights to the development of the basic skills in our primary grades?

**The Basic Skills in the Primary Grades—in Current Use**

What is the nature of the basic reading skills in the primary grades today—what are they, how are they developed? Eagerness "to know" is demonstrated continuously by conscientious teachers and students of reading. They ask: (1) What basic skills shall I teach? (2) How can I determine which skill or skills each child needs? (3) Do I have adequate materials available to develop the basic skills? (4) Which method or methods shall I use? Which is the most effective approach to planning for instruction? These are questions that supply interested reading clinics with concern and raise the sale of "Nytol!" Therefore, let us examine and discuss each question.

**The Skills**

A reading skill is a developed or an acquired aptitude or ability that helps one to perform the task of reading. However, to perform the complete act of reading, one uses a galaxy of skills. Mere knowledge of these skills is not enough. It is the use that one makes of the skills that counts! A child reading from a third grade book may know the three basic vowel rules, yet he may not know *when* and *how* to use them in needed situations. The skill *has not been developed.*

There are three kinds of basic reading skills: *general basic skills, specific skills,* and *related skills.* Each can be described by example. If the *general basic skill* is *comprehension* and the *specific skill* is *critical comprehension,* then the *related skill* may be *drawing inferences.*

Unfortunately *three fallacies* are exploited in relationship to the development of skills. First, although skills develop sequentially, how many teachers attempt to teach a child consonant blends ( a book 2 skill) when he does not know the initial and final consonants (primer skills)? Though he undoubtedly has been *introduced* to this primer skill, it MUST BE *maintained* (reviewed) or even retaught. The *maintenance of skills* is often done in spite of lip service to the contrary. *Lack of maintenance* is second on my list of "sins." How many second-grade teachers *maintain* (review) the skills that have been *introduced* in the first grade? How many sixth, ninth, or twelfth grade teachers *maintain* the skills that have been *introduced* in the primary grades? (In fact, how many teachers are familiar with the reading skills that should be taught?) We should remember that *introduction* is of little value *unless* skills are *maintained.* The third significant fallacy is that one injection of *second-grade phonics skills* is sufficient. After this dosage, is he ready to "untangle" words phonetically for the remainder of the school year? For the balance of the school life? Does one "gulp" of phonics do the trick? Under such tutorage, a few Johnnies may learn to read, but very few will *achieve their reading potential.*

**Diagnosis**

Which skill for which child? How can

563.

you tell? I offer the following guide for those who wish to be effective teachers and students of reading:

1. *Know the general basic, specific, and related skills that are introduced and maintained from first grade through college. Know the readiness skills that can be developed informally for kindergarteners.* This is a "tall order," but is a MUST *if* you are to assess basic skill needs with any degree of proficiency.
2. *Know what each child can do.* Standardized tests can be used. But, with their "overload" of verbal samplings, one can never be sure whether he is evaluating *mental capacity* or *reading capacity*. An informal check of *mental capacity* (hearing capacity) determined by reading a selection to a child and evaluating his understandings of what has been read—will give *a clear picture of what he can do skill-wise.*
3. *Know what each child is doing.* Again, although standardized tests can be used, the test that assesses *all basic reading skills* is yet to be designed. This concurs with Buros and other authorities of tests and measurements. Therefore, three informal procedures are suggested:
   a. check each child's cumulative record and his reading record.
   b. administer informal tests of silent reading, oral rereading, and oral reading to small groups and when necessary to an individual.
   c. observe each child as he participates in reading lessons and in other school activities involving reading.

**Method**

Regardless of the nature and the kind of diagnosis, individual differences in basic skill needs prevail. All children *will not* need help with the same skill or skills. In most primary classrooms, you will find two, three, and sometimes four reading groups. Yet, in the same classrooms, you will find *all members of each group completing the same independent activities* (seatwork). They also will be completing the *same page* as well as *every page* in their workbooks. Their needs are different, but they get the same assignment! Are we differentiating or disintegrating? I wonder!

Many teachers capsulate the skills, too. All children in first grade receive a capsule containing first-grade skills, all second-graders receive the second-grade capsule, and all third-graders receive the third-grade capsule. A child *sitting* in a third-grade classroom, who is receiving instruction from a primer, may be given the third-grade skills capsule. It is good for him! It challenges him! It charges him with frustration! Frequently this method is encouraged by a principal, a supervisor, or a curriculum coordinator who is attempting to captivate his teacher audience by preparing "grade lists" of skills to be taught (frequently copied from teachers' manuals or other authenticated documents). Usually, the teachers place the list in file #13 while its "producer" basks in his achievement, ignorant of the fact that he is sponsoring a rigid and undesirable program of skills development.

**Materials**

No other contribution has had as great an impact on the development of reading skills as the preparation of wide and varied materials. Although many associate the exclusive use of story-type materials with the development of basic skills in the primary grades, in most situations it is a "has been" use. Tradebooks for all levels of interest, social studies books, science books, arithmetic books, newspapers, and magazines are being written for all reading levels. Numerous audio-visual materials are constantly being prepared. Basal texts, with their manuals and workbooks, are generally of high quality. They are attractive and the result of many years of research in language growth, child growth, and psychological and sociological learnings.

Though basic reading skills are usually *introduced* through the basic reader, opportunities for use are augmented through the wealth of available materials. Unfortunately, the fact remains that basic reading skills are *still* introduced, extended, and maintained within the confines of the reading period. It is the rare teacher who develops reading skills in the content areas. When children arrive at the intermediate grades, the junior high school, the senior high school, and sometimes at the college level, they swear that they have never heard of certain reading skills. Some are really "mixed-up" skill-wise! Others find themselves at "a dead end" and must be retaught the skills.

**The Approaches**

Which instructional approach yields the most effective results in the development of basic reading skills? There are three choices: (1) *the individualized approach* of self-selection with emphasis on meeting differences individually, (2) *the experience approach* with the children supplying the subject matter through discussion, and (3) *the basal reader approach* with the teacher using basal texts accompanied by manuals and workbooks. The teacher may use one of six plans with the basal reader: the whole class plan, the level plan, the one group—one text plan, homogeneous departmentalization, the platoon plan, or differentiation within a classroom. Which of these approaches or plans is child-proof, learning-proof, reading-proof, and teaching-proof? None! The best reading harvest can be reaped by using a combination—the individualized approach, the experience approach, and the basal reader approach with differentiation in the classroom.

**The Basic Skills in the Primary Grades —in Prospect**

Has experience and research strengthened your teaching techniques of basic skills? Has the growing knowledge of how children develop and learn increased your understanding of their problems in *introducing* and *maintaining* these skills? Are you satisfied that you are using all available "know how"? Where are you going? Are your objectives clear? Are you functioning at the highest efficiency level? Are you retaining the best of "the old" and using the best of "the new"? Are you content to swing as the proverbial pendulum has swung *OR* are you ready to "settle down" and do an effective job of teaching the basic skills to the boys and the girls in the primary grades? YOU and ONLY YOU can be THE JUDGE!

564.

183.

Vol. 10, 65

443.

## J. CURRENT CONCERNS

### 1. Early Introduction to Reading

JOSEPH E. BRZEINSKI
Denver, Colorado Public Schools

THE HEATED debate which has encompassed the field of beginning reading appears to have had salutary effects. Early reading instruction, like the fabled Phoenix, has emerged from the flames of controversy, strengthened and renewed.

Attention directed toward the teaching of young children to read has made it the focus of much thought, discussion, and study. Traditional ideas have been subjected to reexamination. New proposals have been carefully scrutinized. As a result, it appears that the controversy which characterized this subject during the first half of the 1960's is beginning to subside. During the latter years of the decade, it seems likely that a new consensus will develop which will form the basis for improvements in early reading instruction.

#### Emerging Agreement

Presently, there are a number of indications that a rapprochement of those holding divergent viewpoints is occurring. There is fairly widespread concurrence that:

1. While educational innovation and experimentation have had profound influence upon other levels, kindergarten and preschool education have remained relatively unchanged, although few would argue that no improvements are needed.
2. Balance needs to be restored to the kindergarten curriculum. The play experiences designed to promote personal and social development should be accompanied by content which improves the intellectual climate of the kindergarten.
3. General cultural advantages, improved materials of instruction, and changes which have occurred in the environment of children suggest that youngsters may develop an aptitude for reading at an earlier age than previously has been the case.
4. Critical reexamination of long held beliefs concerning early childhood education is called for in light of recent research evidence.

General agreement has not yet been reached that:

1. The nature of desired changes in early childhood education is indicated, although some would suggest that they should include reading along with the development of other spoken and written language skills.
2. Significant numbers of children would profit from a revitalized kindergarten program which includes planned instruction in subjects with academic values.
3. Early reading instruction provides permanent, long range benefits.

Evidence concerning these points is beginning to accumulate. It appears likely that as teachers evaluate their current practices and experiment with new modifications, additional data will amass which will provide the basis for new direction—the nature of which may be hypothesized from recent research in this area.

565.

## Influences for Preschool Reading

Much of the present day interest in early reading instruction can be traced to four sources. Foremost among these is the reappraisal by educational psychologists and theorists of the effect of a suitable, enriched environment which provides an opportunity at early ages for successful achievement, and thus nurtures and spurs learning.

While strong support for this position has been offered by many individuals, it remained for Bruner to capture the interest and imagination of educators with his now familiar statement "That the foundations of any subject may be taught to anybody at any age in some form."[1]

It was Omar K. Moore, a sociologist, who applied this concept to the field of reading.[2] Moore, working with his computerized electric typewriters, has shown that there is a general intellectual benefit for two- and three-year-olds who have been taught reading. Moore demonstrated that when children are free to explore their interest in letters and words in a responsive environment, early reading ability can be developed.

Another major influence in creating interest in children's early reading are reports of Dolores Durkin. Studying children coming to school able to read, she found significant factors to be the attitude of the family toward reading and the presence of someone in the home who helped them to read.[3] A noteworthy aspect of Durkin's Oakland study is that after five years the evidence continues to support the position that young children taught to read in the home prior to first grade remain superior achievers in school when compared with children whose initial reading instruction began in the first grade.[4]

The Denver reading studies may be worthy of mention as they present an extension of the previous investigations. Moore's work was confined to a laboratory situation with few children. Durkin's initial investigation was limited to 49 public school pupils she discovered had learned to read in the home without any encouragement from the schools. The Denver research represents the first attempt of an urban public school system to investigate the effects of teaching beginning reading to large numbers of boys and girls at early ages. In the preschool studies, the Denver Public Schools, in cooperation with the Carnegie Corporation, attempted to measure the effectiveness of parents helping to prepare their preschool youngsters for reading.[5]

The kindergarten research, conducted with the support of the Cooperative Research Branch of the United States Office of Education, was a carefully designed longitudinal study involving over 4,000 pupils following rigidly controlled and sound procedures.[6] As was the case in the Moore and Durkin inquiries, the interim findings of the Denver reading investigations also tend to confirm the beneficial aspects of early reading instruction.

## Other Recent Research

Other recent investigators report similar results. Anderson found that children of varied mental abilities as young as four years, four months, benefited from early reading instruction.[7] McManus, replicating the Denver television study, reaffirmed the value of parents preparing their young children for reading.[8] Hillerich, describing a study involving the teaching of beginning reading skills in Glenview, found that children who were taught formal beginning reading in the kindergarten were better readers at the end of first grade than children who had

[1]Jerome S. Bruner. *The Process of Education.* Cambridge: Harvard University Press, 1960, p. 12.
[2]Omar K. Moore, "Orthographic Symbols and the Preschool Child—A New Approach," Unpublished paper, Sociology Department, Yale University, 1959.
[3]Dolores Durkin, "A Study of Children Who Learn to Read Prior to First Grade," *California Journal of Educational Research,* May 1959, pp. 109-113.
[4]Dolores Durkin, "A Fifth Year Report on the Achievement of Early Readers," *Elementary School Journal,* Vol. 18, Nov. 1964, pp. 78-80.
[5]Joseph E. Brzeinski, "Innovations in the Teaching of Reading," *School Boards in a Changing Society,* Proceedings of the 1963 Convention of the National School Board Association, The Association, Evanston, Illinois, 1963.
[6]Joseph E. Brzeinski, "Reading in the Kindergarten," *Teaching Young Children to Read,* edited by Warren G. Cutts, Published by Dept. of Health, Education and Welfare, Washington, D.C., Bulletin 1964, No. 19.
[7]Dorothy M. Anderson, "A Study to Determine if Children Need a Mental Age of Six Years and Six Months to Learn to Identify Strange Printed Word Forms When They Are Taught to Use Oral Context and the Initial Sound of the Word," Unpublished doctoral dissertation, Greeley: Colorado State College, 1960.
[8]Anastasia McManus, "The Denver Prereading Project Conducted by WENH-TV." *The Reading Teacher,* Oct. 1964, Vol. 18, p. 22.

566.

not had such training.[9] The significance of the findings of these studies is not that very young children can be taught to read. This has been known for some time. Of importance is the conclusion that for many children early reading instruction has a continuing beneficial influence which persists over an extended period of time. This disclosure has helped generate the interest which has alerted educators to the possibilities inherent in early reading instruction.

## Reassuring Results

The possibilities are most promising in that they do not appear to be accompanied by undesirable effects. The Denver research did not discover any evidence that early reading instruction:

- is harmful to the eyesight of children,
- produces objectionable social or psychological problems, or
- causes unique reading difficulties.

At the same time, many beneficial aspects of early reading instruction were noted. Because these have been reported in detail previously,[10] only a few will be cited at this time. Of interest to parents was the evidence that they can help prepare their children for reading. Tests administered to parents who had been taught procedures for preparing their children for reading showed that the typical adult could master these and apply them in teaching their preschool children to read. Encouraging was the discovery that those who spent a reasonable amount of time preparing their children for reading were successful. As little as five minutes a day of planned regular help produced measurable gains. It was also found that these gains could be increased by parents who read stories to their children 10 minutes or more per day, once again demonstrating the importance of parental interest and participation.

Results from the longitudinal study of those children who were taught beginning reading in the kindergarten give added assurance of the value of early reading instruction. Those pupils taught beginning reading in the kindergarten read significantly better than did those children who had the traditional kindergarten program which, incidentally, developed reading ability through typical readiness activities. The early reading abilities developed in the kindergarten appeared to have resulted in superior reading ability, as shown by the results of a number of widely used standardized tests.

When compared to children who were taught reading in the first grade, those youngsters who were given an early introduction to reading in the kindergarten were superior readers at the end of the first, second, and third grades, in terms of vocabulary development and comprehension skills. They also read at significantly faster rates. Not surprisingly, they also achieved better in most other school subjects where reading ability is a factor.

Reassuring to administrators and others contemplating introduction of early beginning reading into the kindergarten is the attitude of teachers involved. Study of teacher questionnaires reveal changing attitudes toward the place of beginning reading in the kindergarten. Teachers who were very hesitant in the initial stages of the project became quite receptive to beginning reading instruction in the kindergarten, after having had experience with it.

## Practical Procedures

Essentially the procedures developed by Paul McKee and M. Lucile Harrison of the Colorado State College, were designed to capitalize upon the many opportunities in children's environment for creating an awareness of the words, letters, and printed material which literally surround them.

Parents and teachers who have children exhibiting an aptitude for reading, may be interested in the methods which were followed. In Denver, experience has shown that early reading ability can be produced by the following procedures.

1. Start with the consonants and teach children all about letters. Help boys and girls to learn letter names, to learn letter sounds, and to associate these with printed capital and small letter forms.
2. Teach what is meant by the beginning sound of words. Provide children with practice in listening for consonant sounds at the beginning of spoken words.
3. Build upon the oral language skill young children possess—teach the use of context. In speaking the idiom, children have developed certain language patterns. For example, they have learned spoken words must make sense. Extend this principle. Develop within boys and girls an awareness that context can be used as a clue to unknown printed words. Read aloud a sentence omitting a word. Have the youngster supply the missing word or one which makes sense.
4. Encourage children to combine these steps as they read. Because, quite often, two or more words make sense, teach children to use, in addition to the context, the beginning sound of the word and to the extent that they are needed, other letter sounds within the word.

[9]Robert L. Hillerich, Public Schools, Glenview, Illinois, *Elementary School Journal*, March 1965, p. 313.

[10]Joseph E. Brzeinski, "Beginning Reading in Denver," *The Reading Teacher*, Vol. 18 (Oct. 1964), pp. 18-19.



In using these techniques with young children, parents and teachers are urged to proceed at a pace which permits boys and girls to achieve with reasonable success and pleasure.

## Summary

Attention directed toward teaching young children to read has resulted in reexamination of early childhood education. Recent research evidence tends to support the view that preschool children may benefit from being taught reading by parents at home or by teachers in the kindergarten.

Kindergarten teachers, reassured by such data, may wish to reconsider their present practices. Should such reassessment reveal a certain imbalance, teachers may want to consider informal research procedures by which they can personally evaluate the possibilities inherent in early reading instruction.

Although current research evidence is not conclusive, it strongly suggests that school systems, too, would do well to reexamine their programs of early childhood education and consider possible values of early reading instruction.

567.

184.



### b. Some Unanswered Questions About Five-Year-Olds and Reading

DOLORES DURKIN

My initial encounter with this matter of reading and the young child came while I was doing research in California. It was then that a teacher called my attention to her discovery of a beginning first-grade child who, as it turned out, was reading comfortably at a fourth-grade level. I must add too, however, the teacher did *not* mention that this child was just completing the sixth week of a reading readiness program.

For me the incident was the beginning of much wondering about children who first learn to read at home. One result of the wondering is pre-school reading research that has been in progress for three years.[1] When this research began, there was little apparent interest—at least in this country—in the matter of reading and five-year-olds. Certainly no significant research had been done and certainly, too, it was not a topic up for formal discussion at any of the reading meetings. Today, however, the atmosphere is different. Now, for example, there is much conversation about reading and the kindergarten; there is considerable concern for what might develop in this area; and, I suspect, there is real regret, in some circles, that the matter ever did gain attention. Like it or not, though, the issue of "Reading and Five-Year-Olds" *is* before us. And, as with other important issues, it, too, merits a kind of attention that is as full of objectivity and scholarship as it is empty of bias and sentimentality.

Today I propose to look at it with you primarily *via* questions. This approach has been chosen for two reasons. The first is that I have more questions to ask than answers to give. The second reason is rooted in my belief that important answers, for many fields of education, have not been forthcoming because the really significant questions have never been posed, and then methodically probed.

The questions I want to raise today—and, being a teacher, you'll find my opinions interspersed among the queries—are not exclusively concerned with reading and the young child; some, I think, are pertinent for reading-in-general. However, because of the theme of this meeting I have organized my questioning around three topics: (1) Kindergarten and the Kindergarten Child; (2) Reading Readiness; and (3) Appropriate Reading Instruction for Young Children.

#### Kindergarten and the Kindergarten Child

One way of quickly plunging into the topic of "Kindergarten and the Kindergarten Child" is to quote from an article that appeared in *Harper's Magazine* a year ago.[2] In this article the author claims

[1] D. E. Cooke, "Experimental Programs and Procedures for the Improvement of Learning to Read," *Reading in a Changing Society*, I.R.A. Conference Proceedings, Vol. 4, 1959, pp. 236-238.

[1] Dolores Durkin, "Children Who Learned To Read Before First Grade: A Second Year Report," *Elementary School Journal*, in press.

[2] Virginia C. Simmons, "Why Waste Our Five-Year-Olds?" *Harper's Magazine*, 220:71-73 (April 1960).

568.

many kindergarteners might be plunged into reading—like it or not, and ready or not.

One other question related to this discussion of "Kindergarten and the Kindergarten Child" is that of the post-kindergarten placement for those children who do learn to read before first grade. Is it enough to say that good classroom organization, within the first grade, is sufficient to extend and deepen early learnings in reading; or, for example, must we turn to a less traditional kind of plan such as the nongraded primary school? It would seem the potential of inter-age grouping has not even begun to be tapped even though it offers at least a glimmer of hope in our struggle with the unsolved and very real problem of individual differences.

Many more questions, and other possible problems related to kindergarten and reading could be enumerated with ease. And in back of most of them there probably lies the quiet but important assumption that we know the time when children are ready to profit from reading instruction. It would be appropriate, therefore, to turn attention to the matter of "Reading Readiness."

**Reading Readiness**

My purpose, today, is not to discuss all of the factors commonly thought to constitute readiness. However, there is one factor among them—that of interest in learning—which seems sufficiently vital to merit special attention.

As you know, there now exists much information about ways in which an interest in learning to read is fostered. However, there is still a dearth of information about how a child's desire to become a reader is affected by (1) his perception of what reading is, and (2) his perception of how he himself will become a reader. I know of only one study[4] that has given attention to this problem. And yet, it seems so logical to assume a child's perception of the processes of reading and of learning to read could, on the one hand, build mental blocks, and on the other hand, mental bridges to his own success with it. I would like to suggest, however, that if we really knew how to get at a young child's perception of the reading process, and, secondly, his perception of how he himself will get to be a reader, we would then come to see that certain of these perceptions impede, while others promote readiness for reading and therefore ultimate success with it. Perhaps this unplowed field of hypotheses will soon gain the attention of researchers.

Another question waiting systematic investigation relates to the effect that personality characteristics have on a child's readiness to cope with the demands of reading. It is true, of course, that personality has frequently been a concern of those studying the retarded reader. It is also true, however, that personality has not yet become the major focus in any study of able readers.

In my own study of pre-school readers the most unexpected finding is the heterogeneity of the group—with the exception of personality characteristics. In the intellectual realm, for example, IQ's of these 49 children range from 91 to 161. Racially, the group includes Caucasians, Negroes, and Orientals. Economically, the children come from social-class levels varying from lower-lower to upper-middle. But, in personality, they were commonly described by parents, and later by teachers, as persistent, perfectionistic, and competitive children.

Consideration of the nature of these traits—and here no value judgment about the traits is being made or inferred—coupled with a consideration of what it takes to learn to read, raises a question about the role of personality in classroom learning; here, in the matter of learning to read. I would therefore like to suggest, as another hypothesis to be examined, that certain personality characteristics are important assets in the process of becoming a reader; and, consequently, they should be given attention in any assessment of a child's readiness for reading.

These, then, are a few questions and hypotheses to consider regarding readiness. Let me now move on to the third topic to be discussed *via* questions, that of "Appropriate Reading Instruction for Young Children."

[4]G. W. McConkie, and A. J. Nixon, "The Perception of a Selected Group of Kindergarten Children Concerning Reading." (Unpublished Ed.D. Dissertation, Teachers College, Columbia University, 1959.)

569.

**Appropriate Reading Instruction for Young Children**

When I talk about the five-year-old—or, for that matter, the four-year-old—who is ready to learn to read, I do not intend to imply he is therefore like an older child who is also ready. A difference in age obviously makes for other kinds of differences. Consequently, it is necessary to ask whether differences are taken into account by those who seem to be suggesting that teaching reading in kindergarten is merely to move down, by one year, the now-existing reading program. I would like to propose, instead, that when decisions are being made about reading and five-year-olds, questions must be raised about methods and materials that are appropriate for children of this age level.

Might it be, for example, that a kindergarten teaching of reading ought to revolve around particular experiences rather than prescribed books? And here let me be quick to add that, in this situation, the good teacher would (1) provide, not wait for, experiences that are full of potential for teaching reading, and (2) systematically assess what learnings in reading are taking place in order to find direction and prescription for future experiences. In such a situation all children might have the experiences, but not all would be expected to begin to read as a result of them.

Might it be, too, that young children will profit most from attention to reading that is short in time, and of variety in content? For example, even if the basic interest is in teaching reading, should approximately equal emphasis be given to the spelling and to the writing of words? In my own research with early readers it was very common to find that both interest and skill in reading originally grew out of a prior interest in the spelling and writing of certain words—an interest rooted in such factors as the desire to write a letter to a faraway cousin, or to keep up with older brothers and sisters who were doing homework around the kitchen table. Perhaps we who teach in the schools have underestimated the contributions of writing and spelling to the process of learning to read and, as a result, have neglected to use them sufficiently early and systematically.

As we look at reading and the young child might it not also be necessary to devise a way of teaching reading that involves more physical activity? And, isn't it possible, too, that in making learning to read a more active process, it would thereby become a more masculine process —especially when more masculine kinds of materials were used? One possible result of this could be a reduction in the number of boys who do poorly in reading.

Finally, might it be that in our efforts to make learning to read seem like "great fun," we are being wholly unrealistic; and we are also underestimating the young child's genuine interest in serious things, and his desire to achieve in what is significant and important?

These, then, are but a few of the questions to consider in this issue of "Reading and Five-Year-Olds." Certainly it is my hope that as we come to look at it in retrospect we will be able to say that, in making decisions about it, our haste was deliberate; our conclusions were sound; and our regrets were none.

570.

185.

Vol.7, 62

## PART II

## Meeting the Challenge in Today's Reading Instruction

### 1. Reading Instruction and the Five-Year-Old Child

DOLORES DURKIN

IN the late 1930's, through the forties and into the fifties, a pedagogical cry often heard was one that asked: Is the young child ready for school? Today, the more fashionable and, in many instances, the more appropriate question to raise is whether the school is ready for the young child. The focus of concern has thus shifted, even though the general topic is still that of *readiness*.

To be sure, a variety of factors account for this shift. Heading the list is an awareness that this young child is not what he used to be; that as his world has changed and advanced, so too has he. Within this framework, then, there is emerging a kind of reaction against the old readiness emphasis which generally took the form of postponement of reading instruction. Such a one-sided interpretation naturally makes for discomfort when some of the children participating in reading readiness programs are found to be already reading.

For all of the children not yet reading, a current focus for questions centers on the content of these reading readiness programs; for, over time, it has become narrow, highly unimaginative, and even workbook-centered. In a few instances, in fact, the reading readiness workbook *is* the reading readiness program.

To account for this current wave of question-asking only in terms of the school's use of the readiness concept would be shortsighted. What cannot be overlooked, certainly, is the very temper of the times in which we live. Educationally, we are living through an era that places new demands upon the school, many of which could be characterized by the cry of, "Let's have more, and let's have it sooner." In some instances the new expectation is more specifically phrased as, "Let's have better reading and, too, let's have it sooner."

For many different reasons, therefore, this question of reading and the five-year-old child has been dragged into the arena for discussion. I say "dragged" because of my own frequent encounter with professional educators who seem to prefer to ignore it; who, by playing ostrich now, apparently assume that in time the whole matter will die a natural death.

I feel quite different. I proceed on the assumption that the matter of reading and how it might relate to children younger than six will not and *should* not be silently ignored; that if professional educators do not take the lead in giving it both careful and imaginative thought, the nonprofessionals will step in, map out the directions, and make the decisions.

#### Early Reading Research

Since the fall of 1958 when I began a longitudinal study of children who could read when they entered first grade, I have had the opportunity to talk with large numbers of teachers and parents of young children, and with the children themselves. During this time I have become more keenly aware of the child's pre-school world; of the quandaries parents face in raising these children; and of the problems of the school as it attempts to do a good job, sometimes with ineffective teachers and often with either indifferent or, at the other extreme, too eager parents. Today, I would like to review some of the observations, some of the findings and feelings that are mine as a result of doing this research.

The first comments I would like to make are about the children who do come to first grade already reading. The commonly accepted but erroneous ideas about them were summarized not too long ago



571.

by a person who introduced me to a group for whom I had prepared a talk. As it developed, his introduction alluded to the great intellectual precociousness of these pre-school readers, to the way in which they must have been pressured into early reading by overzealous and often insecure parents, and to the plea that we, as educators, counteract this kind of cruelty to children. I am sure that audience felt "let down" as I began to describe the early readers in my research for I had to say that not all are particularly bright; that, in fact, one-third had Binet IQ's of 110 or less. In addition, I had to mention that in most instances there were no indications of unhealthy parental pressures; that, in fact, most of these early readers had simply responded to their word-filled world, had repeatedly asked questions about it; and had had their questions answered by parents, sometimes by siblings, who were patient, interested and, in a few instances, eager. What I also had to point out was that the start of pre-school reading ability is often made a generation before the child is born. Most early readers are the children of people who themselves are avid readers who respect "book learning."

On the occasion of that particular talk I did not have the opportunity to report other observations I have made in carrying on parent interviews. I would like to do that now. Most of all, I should like to describe what I see as two opposing forces impinging upon parents of pre-school children.

The first set of forces or, to use more palatable language, "the first line of communication" comes from the school. Briefly, its message is to warn these parents not to teach pre-school children to read on the assumption that what a child learns about reading before he gets to school interferes with subsequent school instruction. I have no idea how this rumor got started. I can only report that in interviews, and in letters, parents frequently refer to it.

Another, and a very different kind of message is one that comes from the press and from the publisher. In newspapers and in magazines, for example, parents read about the Denver schools as they attempt to develop TV programs on reading—and these are for parents of pre-school children; about Professor Omar Moore, at Yale University, who is using complicated machinery to introduce pre-first grade children to written language; and about the Whitby School in Connecticut as it demonstrates the learnings of three-and four-year-olds when a Montessori curriculum is followed.

Side by side with these optimistic reports comes the warning, usually from advertisements and books, that the schools are not teaching reading with any measurable success; that parents, therefore, had better "take over," preferably before their children even get to first grade. Thus, to be a parent today—in particular, to be a literate parent—is to be surrounded by claims, counter-claims, warnings, pressures and, most of all, by very little peace. But, to be a kindergarten teacher today is almost to be in the same predicament. Here, one way of describing the scene would be to describe the three groupings into which kindergarten teachers tend to divide.

One group seems to feel the need to defend the kindergarten program as it generally exists today. With this group the emphasis is on the value of play, on the need for social learnings and adjustments; in a sense, on the "youngness" of young children. This group would tend to see the entrance of reading into the kindergarten as the inevitable entrance of a formal, highly structured program that would be inappropriate for five-year-olds. To some extent, I think, this group has the support of many professional educators.

The second group of kindergarten teachers is of a very different variety. This group seems too ready to bow to certain pressures—and these would include the pressure of Harvard-conscious parents who seriously believe three years of age is none too soon to develop good study habits, and at least a small amount of achievement in reading. Unfortunately, this second group of kindergarten teachers shows an inclination to move toward a workbook curriculum even though we all know good readiness and good reading programs cannot be purchased.

The third group of kindergarten teachers represents, at least for me, hope on the horizon. This group does not interpret the asking of questions about kindergarten as a prelude to criticism. It recognizes the

572.

inadequacy of typical kindergarten programs for some five-year-olds. This is the group that steers clear of a sentimental attitude toward young children, but at the same time is warmly appreciative of the wonderful curiosity, eagerness, and intellectual potential of five-year-olds. This group, more than the other two, seems less hidebound by tradition and, therefore, is more willing and able to step outside the current conception of kindergarten to see what else is possible, and possibly better. In a sense, it is to this group that I direct my comments regarding "Reading Instruction and the Five-Year-Old Child." Since these comments will be made within a context of certain assumptions about kindergarten and kindergarten children, it might be best to begin by making the assumptions explicit.

My first assumption is that kindergarten teachers, without neglecting the intellectual development of young children, do need to give special attention to the areas of social and emotional development. For many five-year-olds kindergarten is their first school experience and, like all "firsts," it is often accompanied by problems of adjustment. Due recognition of this, however, should not put social development and intellectual development into two discrete and distinctly separate categories. Neither kind of development is fostered in a vacuum. Both can advance concurrently and, in fact, both ought to be seen as nourishing each other.

That skill in reading is part of the foundation for intellectual growth is a second assumption. Either to prepare for it, or even to initiate it, therefore, is an important responsibility of the kindergarten. It is further assumed that insufficient attention to this responsibility is one of the factors that has led to a kind of alienation of kindergarten from the elementary school. The need to make it a more integral and continuous part of the rest of the school program becomes increasingly apparent and important.

My third assumption is more directly concerned with kindergarten children. It is a kind of reminder that these children enter school often sharing with one another only their chronological ages; variation usually prevails in current interests, past experiences, and innate abilities. As a result of these differences no single pattern of procedures will be appropriate for all kindergarten children just as, later on, no single level of accomplishment is to be expected of all. These comments apply to each aspect of a child's development, including his possible development in the area of reading.

The fourth and last assumption is that kindergarten programs will be good programs to the extent that they neither frustrate nor bore five-year-olds. Ideally, then, these programs should proceed in a way that stimulates the most able child without undermining the least able in the group.

## "Exposure Curriculum"

It might now be asked: How can this particular principle be applied to reading at the kindergarten level? One possible way is through what might be called an "exposure curriculum." Permit me to elaborate on what I mean because it is this that I recommend as one appropriate way to teach reading in the kindergarten. To emphasize that neither the radical nor the impossible is being recommended, common kindergarten routines will be used for illustrative material.

One common routine, certainly, is the job of taking attendance. This is usually done by sound. That is, a child responds when he hears the teacher call his name. But, why couldn't attendance sometimes be taken "by sight," that is, why couldn't children be given cards on which their names are printed and, when they are familiar with the written form, why couldn't the teacher then take attendance by holding up name cards from a set she has made for herself? At another time, couldn't the routine become one in which children pick out their own name cards, stick them on a flannel board provided for this purpose and thus show not only that they are present, but also that they can identify their names in print? Later on, might it not also be interesting and profitable to have the children help as the teacher arranges these posted cards in alphabetical order—first Ann, then Bobby, and then David and Dorothy? And, here, wouldn't it be natural to ask, "Who sees something that's the same about David's name and Dorothy's name?" Still later the

question might be, "Who hears something that's the same in David's name and Dorothy's name?"

On another occasion a teacher might make something for the children, perhaps a puppet or maybe some pudding. What might happen here? Recent observation in one kindergarten demonstrated that making pudding sometimes becomes nothing more than the making of pudding. But, what could it become? For one thing, opportunity to show how words on a box often tell a person what to do. Written in a simple way for the children, directions on a box of pudding might be listed as:

1. Mix
2. Heat
3. Chill
4. Eat

What might be learned here, at least by those children who are interested and, indeed, "ready?" That written symbols tell us something, that they are read from the top to the bottom and, for Mary or Mike as they look at the word "mix," that some words begin with the same letter, and even with the same sound.

At another time, what has been seen or done by kindergarten children can become the content for more story-like writings. For example, a walk around the school building is taken and then, together, the teacher and the children compose the following:

Today we went outside.
Everybody looked at us.
We saw a policeman.
He was in a black car.

What develops from such a story depends upon what the teacher does with it —most of all, what she encourages the children to do with it. Once stories like this are talked about and, for example, a left-to-right, top-to-bottom reading direction is indicated, couldn't they then be transferred to large pieces of cardboard to be hung around the room? In addition, couldn't the individual sentences and, later on, individual words be printed on small cards and placed in a pocket at the bottom of each story so that those children who might have interest in reproducing the story independently could do so? And, if some children ask to copy a group-composed story so that it might become their own, shouldn't paper and pencils be available and their use encouraged, though never pushed?

In carrying on the study of pre-school readers referred to earlier, it has become common to hear parents describe these children as "pencil and paper kids," as children who were always putting things down on paper, who first learned to print, and then to spell, and only then to read. Without exception, and this is true of the poor as well as the rich, these early readers are children who have had in their homes small blackboards, chalk, crayons, and always abundant supplies of paper and pencils. Shouldn't these materials also be in our kindergartens so that when kindergarten children play house, for example, some might include the writing out of a grocery list as part of their play? Or, when they play store, couldn't some children be encouraged to prepare labels for the packages and canned goods to be displayed and sold? While some children build, couldn't others make signs to be hung or painted on the sides of the buildings?

Many more examples could be cited, but these questions and suggestions are probably sufficient in number to illustrate what I have chosen to call an "exposure curriculum." However, a few general comments about it might help fill in some gaps, or answer questions which the illustrations suggest but do not answer. Perhaps the most helpful comments would be statements of the four hypotheses upon which the proposed way of teaching five-year-olds is based. They are as follows:

1. The best way to assess a young child's readiness for reading is to give him, over time, a variety of opportunities to learn to read. He then demonstrates his readiness, or the lack of it, by the way he responds to the opportunities provided, and also by what he takes from them.

2. The use of books is only one possible way of introducing children to the important job of learning to read. Many activities and materials, some of which are already a part of typical kindergarten programs, are equally valuable and, especially for young children, possibly more productive.

3. The most "natural" mode of acquiring skill in reading is different for different children. Some might do their very best when reading is approached indirectly; that is, through writing and spelling. In their case, simple but almost immediate help with phonics seems desirable.

Other children might do their best when reading is approached more directly. In their case the use of books would be more frequent. Skill in phonics, while it would be helpful, would not be needed quite so quickly.

4. This so-called "exposure curriculum" could lead to many different ends. It might, for example, simply provide interesting things for children to do. In other instances, with other kindergarten teachers, it might easily become a confused and confusing conglomeration of many different activities. But with teachers who give time to planning and to evaluation, with teachers who allow for variety but also for a kind of consolidation of what has been learned—with these teachers an "exposure curriculum" has the potential to become an exciting, a "natural" way of introducing young children to the wonderful world of written language.

186.



## 10. Let's Not Read So Soon! (Even Those Who Can)

GERALD G. GLASS
Adelphi University

THE TEACHING of beginning reading is on a track system! One track. As the "new insight" choo-choo goes speeding along it is getting to be the only track "do-it-sooner, do-it-sooner, do-it-sooner" system, leaving all others either by the wayside or far behind damned as "lock-stop" or "underestimators - of - young-minds." The hottest fireman of them all, Jerome Bruner, began shoveling on the coal with "our schools may be wasting precious years by postponing the teaching of many important subjects" *(1)*. And how about this for power to run a run-away train by: "delay in teaching reading to *some* children wastes not only precious time but also the precious spark of enthusiasm that teachers are always trying to light" *(2)*. An examination of the literature and the trend in the changes instituted in beginning reading programs in the past five years leave no doubt that today it is considered "good" to look for ways to bring youngsters to reading sooner rather than later.

### Are We Reading Too Soon?

This paper is not going to enter the current dialogue in opposing this trend by asking the usual questions *Why?, To What advantage?, For whom?*. What about those who are "normal" and can't learn earlier? Can we keep from them the message that they are already failures at five and six. (Would you believe four, in the "new" nursery school?) Moffitt asks these and many other pertinent questions elsewhere *(3)*.

We have other concerns. We seriously question whether teaching children to read and to use reading before *second* or *third grade* is advantageous to the developmental nature of reading. The utilization of reading as a form of communication before it should be used may potentially have a long lasting negative effect upon the child's growth in reading. These concerns result from an examination of the apparent reasons that young ones have for reading and also a serious unbiased look at what six or seven year olds can derive from reading.

### Why Read?

Why does a youngster in primary school read? To enjoy story line? Maybe, but he can usually *hear* stories that offer much more in the way of descriptive vocabulary and complexity of plot. An adult, teacher or parent, is not controlled by the problem of word analysis and also can give immediate help with what might be difficult concepts. (And, at this age, the contact with an adult in a non-evaluative atmosphere is always fun and sort of confidence producing.) Maybe the early grader reads because the books are pretty. Of course, but it is not the words in print that are pretty—it is the whole book itself—and the person reading out loud can show the pictures and discuss them when appropriate. Maybe a youngster wants to know about the world around him. He wants to use reading to extend himself and learn. But why a book? He can learn more about *anything* by hearing someone with more knowledge than himself (a teacher) tell about it. He can see a film that he can easily understand which tells him so very much more and usually in a more inviting way. He can "do" by planting or building or comparing actual phenomena, rather than guess what the world is about through someone else's words. Reading would give relatively little. In short, reading, for a youngster in primary school, is the *least* effective medium of all the communication media that can be used for learning about things or for enjoying stories pleasing to the thoughts and imagination.

Of all the communicative skills the primary child develops, reading is the least mature. It is merely in its beginning stage. A young reader cannot deal with material beyond the level at which he can analyze the sound of words. He can think and be made to think at a much higher level if reading is not the stimulus. The main thing a primary youngster seems to be missing when he reads instead of hearing and seeing is practice in sounding out words, even if the words in their book setting almost always have to be at levels lower than words he can hear without help.

How can you learn more about a frog? By reading about him in a second or third level book or by seeing a film strip or a film? Better still, have a frog before you and compare him to the anatomical chart you have right next to the frog. Or why not compare the chart to the actual discoveries you make when you dissect a frog? Yes, learning can be really interesting!

### Reading More and Enjoying It Less?

*Learning* that the learning process can be both satisfying and educative is crucial in the education of a youngster. If a youngster depends primarily upon "reading" to learn in his early years he will not only be cheated of using his highest level cognitive skills (at that stage in his development) but he might initially (and forever) associate reading with the *act* of reading and not expect that it can give him learnings and joys beyond the other ways of communicating (which reading cannot do in the early grades). There is so very much a child can learn through actual experience, through listening, and speaking, and seeing—and so relatively little the child can learn through *reading material* that can be introduced even in the most advanced early grades. Almost every primary school youngster can listen and speak at least two years beyond the level at which he can read. Reading here can be a drag on learning.

There is ample evidence that in the

575.

upper grades—where reading should be the medium through which the student develops his cognitive potential—many youngsters already have associated the act of reading with something they are expected to do instead of what they feel would be more interesting and informative. These readers may not, because of the materials they have read in the primary grades, expect to deal with writing that includes the thoughts, evaluations, descriptions, and ideas which cannot and should not be introduced to youngsters not mature enough to deal with them. For how long are we going to continue to develop readers who "skip the parts where people do not talk." At about age nine or ten development allows for maturing cognitions that can best and often only be obtained from reading—not through a picture, actual experience, or visual examination. To a great extent the nine or ten year-old has played out what he can get from "non-reading" and needs to deal with thoughts and ideas not available to him without reading. Great men of ideas have long passed away and the middle grader is now ready to give them a hearing—through reading. Persons he could never hope to meet are "listened" to—through reading. The immediate environment is becoming less adequate for the student's conceptual, experiential and vocabulary growth. He is now ready to learn and experience—through reading. It is ironic that *before* fourth or fifth grade, when reading should be least important in the education of the child, the most intensive reading instruction is given. But in the upper grades, when reading becomes crucial in the education of the child, reading instruction is offered to a significantly lesser extent.

## First Things First!

In today's primary grade classroom the craze to teach reading sooner is inundating the rest of the curriculum. It is more reading, often at the expense of other communication skills! Youngsters are working in a medium that is relatively new to them. Ideas cannot be explored nor can new ideas be acquired through reading, because word-analysis ability needs about three or four years to catch up with what a youngster can understand. As stated, most first graders are reading at least two years below their comprehension level.

Therefore, if reading is not important to the immediate education of the early grader and if other media can more effectively educate the child, why do we not stop and ask: Why are we pushing reading so heavily in the early grades? Why not push (not just include) learning through listening *before* reading. Actually, to a youngster listening is the same as reading, only easier and more productive. Words mean the same whether they are spoken or written. Youngsters have been listening all their lives—it would be (and is) sheer ignorance not to utilize listening to its fullest when it can do the job. Almost anything that can be read by a youngster through second grade could be handled at a much more advanced and interesting level through listening. If we were to wait until a youngster's word analysis ability caught up to his conceptual ability before we "pushed" reading, the youngster would, from the start, feel the power, strength, and uniqueness of reading. His only control would be his own interests and strivings.

Also, think of the dimensions in learning we could reach if we developed materials to listen to with the same dedication that we develop material to read. It is conceivable that the level of ideas handled at first grade through listening would be more like those introduced at our present third grade. The primary aim, then, of early reading instruction would be the teaching of the "decoding" so that the youngster can, as soon as possible, drop the need for an auditory cue and become effective in handling language through visual (written) cues. If, during that time, he has developed vocabulary, concepts and interpretive skills through listening, seeing and doing, he will be catapulted to much higher levels when reading becomes appropriate. But to keep the youngster tied to reading before word-analysis ability matures is to hamper his educative process.

The writer has elsewhere described an approach to the teaching of reading that holds the "use" of reading in abeyance until the teaching of word analysis is completed" *(4)*. This is not only possible



but, as has been discussed here, also desirable.

## Summary

This writer feels that the early teaching and emphasis upon reading has within it inherent factors which may account for the relatively poor record we have as "readers." (How often do adults turn to reading for what it alone can give?) Because of the developmental nature of reading versus the other communication media, "reading" ability is years behind in the primary grade youngster. Thus what the youngster can "read" is usually not nearly as rewarding to him as what he can hear, see, examine, or do.

The only task unique to early reading is that of learning the word-analysis skills. If, in the early grades, concepts were to be developed solely through listening, speaking, feeling, seeing (instead of through reading), the potential for growth would indeed be great. Later when the child has become proficient in word analysis, he can be presented with material to read at levels truly commensurate with his stage of development and truly able to fire his imagination and thought processes. Then perhaps we can hope for a nation of "readers."

### REFERENCES

1. Bruner, J. *The Process of Education.* Cambridge: Harvard University Press, 1961.
2. Pincus, M., Morgenstern, F. "Should Children be Taught to Read Earlier?", *The Reading Teacher,* 18 (Oct. 1964).
3. Moffitt, M. "Is It True That Children Can Be and Should Be Taught To Read at a Younger Age Than Before?" Elementary Division, N.Y.C. Bd. of Ed., Apr. 1962.
4. Glass, G. "Teaching Word Analysis Thru Perceptual Conditioning." Proceedings of the International Reading Association, "Reading for Inquiry," 1965.

187.

Vol.7, 62



## 5. When Should and Could Johnny Learn to Read?

JACK A. HOLMES*

Traditionally, our public school children embark upon the exciting adventure of learning to read when they enter the first grade at the age of six—or soon thereafter. But why wait? Many enthusiasts, anxious to speed up the production of academic excellence, are now urging that the *formal* process of teaching the child to read should start much earlier. Can it be done? Though some doubt that it can, the Harvard psychologist, Jerome S. Bruner (1960), has declared, "Any subject can be taught effectively in some intellectually honest way to any child at any stage of development."

Before we examine the research findings regarding the feasability of trying to teach children to read before the age of six, it should be made clear that there are other extremely important questions that must be considered. First, there is a problem in visual hygiene. Some authorities claim that by teaching the child to read too soon we run the risk of damaging his eyes for life; others, however, claim that no such risk is involved.[1]

The second question concerns itself with curriculum sequence and a problem in educational philosophy. Obviously, when a child is learning to read he cannot be romping with father, walking in the woods, exploring a pond, building with blocks, listening and talking with adults, or playing with other children. That is, when engaged in reading he cannot be learning the many other worthwhile skills which underlie the child's ability to grasp the deeper meanings behind the printed page (Holmes, 1960). He cannot be accruing the mass of first-hand information and rich personal experiences which bestows upon the printed page a sense of reality (Holmes, 1957). Nor can he be expressing himself in the many ways which young children find so satisfying—and which psychologists find so necessary for his well-rounded development.

Rousseau (1762) long ago rejected the French tradition of rearing children from infancy as if they were "little adults." Rousseau would not warp the child to fit society, but would allow him to grow with that freedom of expression found only in untutored play. He would encourage the child to satisfy his curiosity in an atmosphere of unfettered fun while exploring nature first-hand. The philosophical question, then, boils down to this: If we agree with Rousseau, that the purpose of education is to develop an emotionally stable child who can think creatively, must we also follow Rousseau's thesis that to do this we must not press the formal teaching of language and reading too soon upon the child's tender nature, but allow him to develop his own bent first by personally exploring nature?

The seriousness of the above questions cannot be denied. Yet, it is premature to try to answer them before we resolve the more basic question of just how early *can* the normal child learn to read. If he cannot learn to read before the age of six, the visual hygiene and philosophical problems lose much of their impact so far as the teaching of reading in the pre-primary grades is concerned.

Though the literature has been reviewed in the past, no generalization has been formulated other than that put forth by Gates in 1937 when he wrote, ". . . statements concerning the necessary mental age at which a pupil can be entrusted to learn to read are essentially meaningless." Obviously, Gates' statement gives us no help at all for formulating policy or guiding practice. Therefore, the present writer has been asked to review again the pertinent research in the hope that more useful generalizations may emerge.

Morphett and Washburne (1931) compared the progress of first graders at different ages. They concluded that a mental age of six and one-half years was the optimal age at which to begin teaching the child to read. Taylor (1950), however, has shown that Scottish children at the age of five enter school and begin to learn to read. Moreover, when compared with American children, the Scots hold their

*This paper is part of an on-going longitudinal study conducted under the direction of the writer and supported by a grant from the Carnegie Corporation of New York. Thanks are accorded to my assistant, Mr. Charles Perkins, for his part in tracking down some of the pertinent literature.

[1]This question is in part being resolved in an article now in preparation: "The Visual Hazards Involved in the Early Teaching of Reading."

577.

lead and are, age for age, more than a year advanced in reading by the beginning of the second grade. The average I.Q.'s in both groups were 100. In sharp contrast, Olson (1942) maintains that six and one-half is too young for most students, and that the schools should postpone reading until a child exhibits what he calls a "seeking" behavior toward books. For many, this would be at age seven and beyond.

On the other hand, Gates (1937) has shown that *four* groups of first graders given beginning reading instruction by teachers of varying ability, using different kinds and amounts of instructional material, learned to read at different mental ages. The first group, with a teacher who used modern and effective techniques and a great deal of extra material adjusted to individual differences, learned to read at a mental age of 5.0. A second group, using slightly less material, learned at age 5.5. A third group, even less well provided for, required a mental age of about 6.0. The fourth group, taught in large classes by inferior teachers, using mass methods, included many children with mental ages of 6.5 who did poorly and some with mental ages of 7.0 or above who had difficulty.

In the experiment just cited, Gates took students of the same chronological age and searched for the different mental ages required to learn to read under different conditions. Davidson (1931), on the other hand, selected three groups of children all with the same mental age of four years, but of different chronological ages, i.e., 3, 4, and 5 years. The mean I.Q.'s of the three groups were 128, 98, and 77, respectively. The results indicated that the bright 3-year-olds made the greatest gain in reading achievement, and the dull 5-year-old, the smallest. Since no group contained more than five children, instruction could be geared to individual differences.

Now, if we return to Taylor's study, we realize that, while in America the average size of a first grade class is 30 pupils (NEA, 1957), the average first grade class in Scotland, as indicated by Taylor, contains only 19! Already a nascent hypothesis appears plausible: *the younger the pupils, the smaller the class must be if reading is to be successfully taught.*

More recently, Durkin (1961) studied 49 children who had learned to read prior to entering the first grade. She says, "When the total group started first grade, the average reading achievement for those who learned at three years was 2.6, according to grade-level norms. For those who didn't learn until they were five, the average achievement was 1.7. I.Q.'s were comparable. Two years later, when the children were finishing the second grade, the average reading achievement of those who first learned at three still continued to be greater." However, this lead had been reduced by four months.

Durkin's study, in addition to reinforcing our hypothesis regarding teacher-student ratio, introduces the important factor of motivation. She states, "The total group included Caucasians, Negroes, and Orientals. Economically, the children come from social-class levels varying from lower-lower to upper-middle. But, in personality, they were commonly described by parents, and later by teachers, as persistent, perfectionistic, and competitive children." In no case did a child "learn on his own," but *was taught* by an older sibling, a parent, a baby sitter, or someone else. Generally, the most helpful situation was to have a sister about two years older who liked to play school. The study pointed out that the younger child who learned to read before entering school seemed to have a keen desire to "keep up" with the older one, and this required that the younger one learn to read and to print about the same time as the older one.

Rowan (1961) reports a study being conducted by Moore at Yale. Moore subscribes to the doctrine of John Locke that, "When he can talk, 'tis time he should begin to read." Without regard to reading readiness factors, Moore is presently teaching 35 normal-to-bright youngsters, age two to five years, to type, read, write, and take dictation! The method? Each child is allowed to play on an electric typewriter. As he pounds the keys, "an adult sitting next to each child" repeats the name of each number or letter as he strikes it. The child soon learns to call the keys before the adult, and from this stage moves to "drawing" letters on a chalkboard. When the child has mastered this, a projector is fastened to the typewriter, and now he reads and types out simple

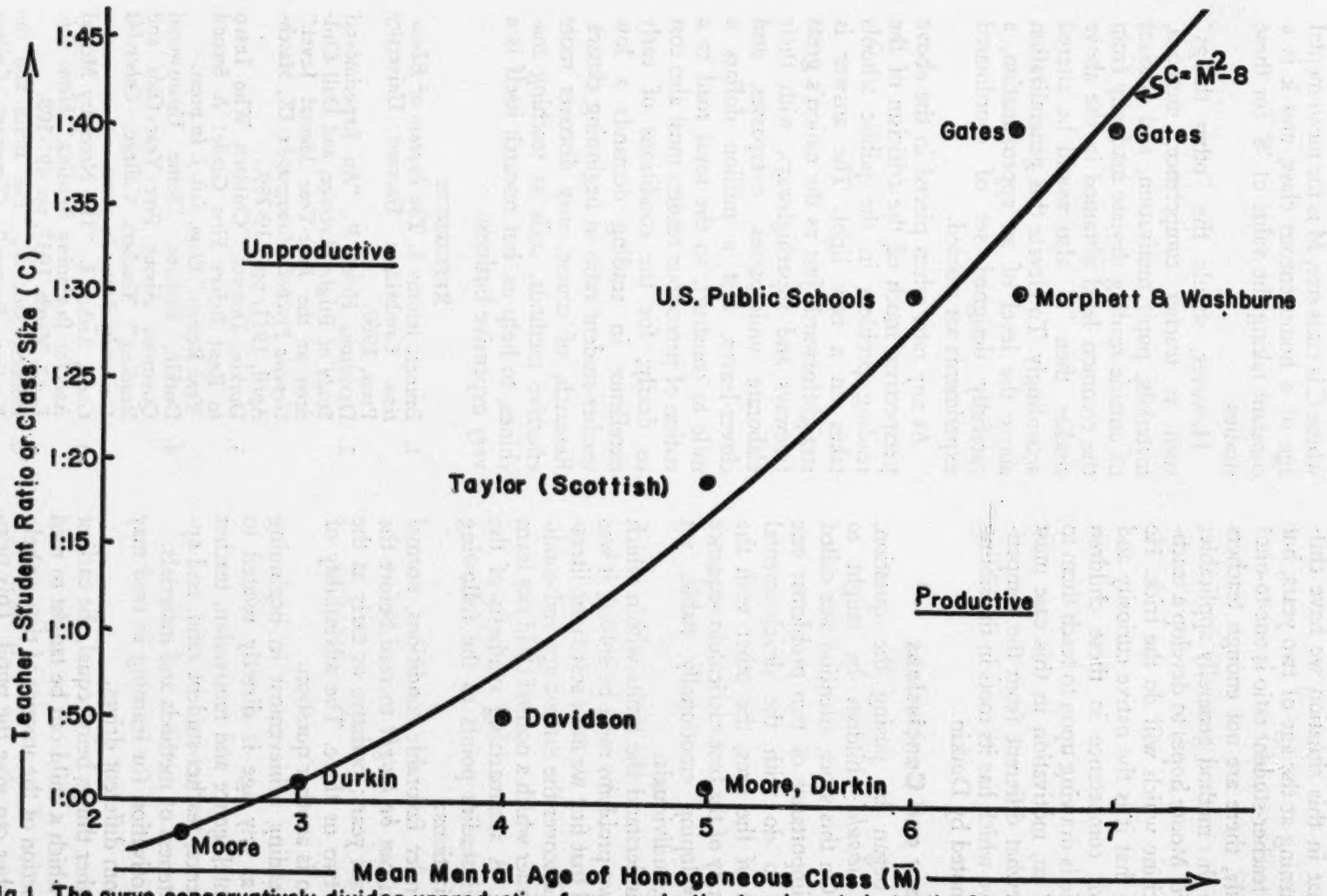



Fig. 1. The curve conservatively divides unproductive from productive teacher-student ratios for beginning the teaching of reading to homogeneous classes of varying mean mental ages. For Moore's two to three year olds, it appears as if a teacher plus an electric typewriter, projector, and tape recorder for each pupil is equivalent to a two-to-one teacher-student ratio.!

519.

sentences. Finally, he reads the simple sentences into a recording machine from which he subsequently types out stories from his own dictation. Rowan wisely notes that in this situation we have children learning at the age of two years, but that the teacher-student ratio is one-to-one! Obviously, there are not enough teachers to make this method generally applicable; therefore, Moore hopes to develop a teaching machine which will do the trick. He believes that it is the native curiosity and drive for competence in these children which he is drawing upon to teach them to read. If so, motivation in this case must be somewhat different from the competitive drive which has its roots in the sibling rivalry noted by Durkin.

## Summary and Conclusions

We began by posing the question, "When *should* children be taught to read?" On this score, attention was called to the importance of two problems: one having to do with the developmental hygiene of the eyes, the other with the philosophy of the best curriculum sequence for developing emotionally stable, yet creative, individuals.

To understand the limits within which these two problems must be solved, it was decided that first we must search the literature to discover the earliest age and conditions under which a normal child *can* learn to read. A summarizing synthesis of the scattered studies points to the following generalizations:

1. Under favorable conditions, normal children *can be taught* to read before the age of six years; perhaps, as early as the age of two or three. The advisability of doing so is another question.

2. Reading achievement in beginning classes at any age is directly related to pupil intelligence and motivation, teacher competence, teacher-student ratio, and appropriateness of methods and materials.

3. Motivation for learning to read may stem from different drives.

4. Other things being equal, the earliest age at which a child can be taught to read is a function of the amount of time or help the teacher can give the pupil. This principle is elegantly demonstrated by the mental age versus class size curve shown in Fig. 1.

As a *first approximation,* the equation for a conservative line of best fit[2] takes the form:

$$C = M^2 - k$$

where C is class size, M is the mean mental age of a homogeneous class, and k is a constant taking the value of '8' for these studies.

However, should the "other things" such as teacher competence, methods, materials, pupil motivation, and amount of outside reading deviate markedly from the common level obtained in the above studies, then "k" also would be altered accordingly. To elevate this generalization above the level of an approximation, a carefully designed set of coordinated experiments are needed.

At any rate, when placed in the above perspective, much of the criticism of the reading problem in the public schools takes on a new light. The answer is straightforward. Just as the nation's great freeways and superhighways, with their elaborate underpasses, overpasses, and clover-leaves, cost a million dollars a mile to construct, so the royal road to a nation of precocious readers must also cost us dearly; for the conditions of early excellence in reading demands a low teacher-student ratio in beginning classes. Research, of course, may discover more effective methods, such as teaching machines, to help us, but research itself is a very expensive business.

### REFERENCES


1. Bruner, Jerome S. *The Process of Education.* Cambridge: Harvard University Press, 1960.
2. Davidson, Helen P., "An Experimental Study of Bright, Average, and Dull Children at the Four-Year Mental Level." *Genetic Psychol. Monographs,* IX, March-April, 1931, pp. 119-289.
3. Durkin, Dolores, "Children Who Learn to Read Before First Grade: A Second Year Report." *Elem. Sch. J.* In press.
4. Durkin, Dolores, "Some Unanswered Questions About Five-Year-Olds and Reading." Teachers College; *Columbia University Press.* In press.
5. Gates, Arthur I., "The Necessary Mental Age for Beginning Reading." *Elem. Sch. J.,* 37, March, 1937, pp. 497-508.
6. Holmes, Jack A., "The Brain and the Reading Process." *Claremont College Reading Conference: Twenty-second Yearbook,* 1957, pp. 49-68.
7. Holmes, Jack A., "The Substrata-Factor Theory of Reading: Some Experimental Evidence." *New Frontiers in Reading,* Proceedings of the Fifth Annual Conference of the International Reading Association, New York, N. Y., May 7, 1960. Distributed by Scholastic Magazines.
8. Morphett, Mabel V., and Washburne, Carleton, "When Should Children Begin to Read?" *Elem. Sch. J.,* 31, 1931, pp. 496-504.
9. N. E. A. *Research Bulletin* 35, February, 1957, p. 27.
10. Olson, W. C., "How Children Grow." *NEA J.,* XXVI, 1949, pp. 436-437
11. Rousseau, Jean J. *Emile.* In *Everyman's Library* edited by Ernest Rhys. Translated by Barbara Foxley. New York: E. P. Dutton, 1938.
12. Rowan, Helen, "'Tis Time He Should Begin to Read." *Carnegie Corporation of New York Quarterly,* IX, No. 2, 1961, pp. 1-3.
13. Taylor, Christian A., "The Effect of Training on Reading Readiness." *Studies of Reading,* Vol. 2, University of London Press, 1950, pp. 64-80.


[2]The quadratic equation $C = \overline{M}^2 + M - 12$ also fits well within practical limits, but the curve is less conservative.

244.

580.

188.

Vol. 8, 63

218.

## M. Differing Opinions in Reading

### 1. When Should Reading Instruction Begin?

SUE MOSKOWITZ

For several years, newspapers and magazines have announced excitedly that children of preschool age have been taught to read. Some of the reports have been phrased in such sensational and vague terms that the investigators whose work they described must have been dismayed rather than flattered.

Can young children be taught to read? Of course. Terman and Hollingworth reported early readers long ago; and every kindergarten and first grade teacher has had children who were already reading. Some knew a small number of words; others could read with some ease. But many educators and psychologists say the wrong question is being asked: Not *can* young children be taught to read, but *should* they? In his inaugural speech as president of Teachers College, Columbia University, Dr. John H. Fischer said, "What a pupil can do and what he should be doing are not necessarily the same."

In general, specialists in early childhood education hold that kindergarten and nursery school are not the places for formal academic lessons—for pressure to achieve; that the preprimary grades are the child's first introduction to a large social group. School is a strange and bewildering place; the child must gradually learn to get along with others, learn routines, to follow a daily program, to sit quietly sometimes and listen to others, to work independently, to face problems in social adjustment, to share the teacher's attention with many other children, to concentrate, to be active, to take initiative, to experiment, to work out simple problems. He also begins to learn informally about social studies, science, mathematics, creative arts, language arts, and health. All this in perhaps three hours a day with 30 or 35 other children.

Yet kindergartens in a number of communities are introducing the systematic teaching of reading. It must be admitted that pressure from parents is often responsible. In the light of sensational publicity it is not surprising that many parents have become anxious about having their young children read or even regard precocious reading as a status symbol.

However, the studies themselves are very interesting and worth following with

581.

close attention. It should be said in passing that most of them have received sizable grants from such sources as the Ford Foundation, the Carnegie Foundation, and the United States Office of Education.

## Current Studies of Reading or of Readiness Before the First Grade

Perhaps the most widely described, because of the current interest in teaching machines, is Omar K. Moore's experiment in teaching very young children—age two to five—to read. At first the basic instrument used in the experiment was an electric typewriter. Each child worked with an adult teacher in a one-to-one relationship. As the child struck the keys willy-nilly, the teacher simply said the names of the letters struck. From letters, the child proceeded to words and then to sentences which were projected on a screen. A basic idea of Moore's is that the adult must not teach at all but must be completely neutral; the child's activity must be "autotelic"—self-motivated without any introduction of reward or punishment—even encouragement. The teacher must make no suggestion or explanation. For that reason—and because of the obvious impossibility of providing a teacher for each child outside of an expensive experimental situation (the experiment is said to have cost about $400,000.) Moore has developed the typewriter into a highly complicated computer that assumes the function of teacher. At present, the machine costs $25,000, but under mass production should cost about $10,000. It is presently being tried out under Moore's guidance in a private school in Connecticut.

Reactions to a movie showing Moore's experiment in action have included frequent comments that the learning situation is tense. Moore himself is said to be particularly interested in the fact that some of the children didn't learn to read, and is seeking to account for it. He is writing a brochure that is to be published at a future date.

An interesting variation on the Moore experiment was a pilot study in 1961 by the Social Psychology Laboratory of the University of Chicago. Using Moore's electric typewriter technique, they attempted to teach reading to a group of four-year-old Negro children from a slum area, though not from the worst conditions to be found in the city. However, the children failed to learn; they failed to progress from the initial stage to the next and showed negative reactions to frustration. The researchers concluded that the failure was due to the difference in many ways of their lower-class children from Moore's middle-class children. They therefore decided to drop reading instruction and to embark on a reading-readiness program in which no activity would be more important for the children than reading aloud to them. They feel it is important that children hear an adult reading, see and handle the book, and experience a warm relationship with the teacher.

Another study dealing with the education of young lower-class children is being carried on by New York Medical College under Martin Deutsch and Rebecca Winton. Their thesis is that lower-class children enter school so poorly prepared to produce what the school demands that initial failures are almost inevitable. In their experiment 60 four-year-olds are attending two New York City public schools. The children are not being taught to read. The emphasis is on language expression and comprehension, as well as on training in auditory discrimination, focusing attention, followiing directions, and visual perception.

The effort to prevent reading failure among underprivileged children is also responsible for the development of two new sets of basic readers. It has often been said that many city children from poorer homes do not identify with the predominantly middle-class white children in our basic readers and trade books. A series of readers developed in the Detroit public schools and another by Bank Street College in the New York public schools are picturing non-whites as well as whites, and will use city-oriented content. The Detroit books, already in print, have the usual controlled vocabulary; the Bank Street books aim for fewer vocabulary restrictions and natural speech rhythms, and are to appear in 1965.

An experiment that has received wide notice is being carried on by the Denver

public schools. Parents of pre-first grade children receive televised instructions on how to use a book of exercises called "Preparing Your Child for Reading" with their own young children. This program does not aim to teach young children to read; the prescribed activities are better described as prereading: hearing consonant sounds, supplying words in oral context, knowing letter forms and letter sounds. The Denver experimenters expect to follow the progress of the experimental group for some years to see whether children with this type of training by their parents show advantages over those without it. Reactions to this experiment have ranged from approval of involving parents in the educational training of their children to concern that in a number of cases very young children may be pressured by parents who have no talent for teaching.

One of the most interesting studies of early reading is Dolores Durkin's study of 49 children who had learned to read at home before they entered the first grade. The children came from varied ethnic and socio-economic backgrounds. Dr. Durkin was particularly interested in their personalities: in general they were quiet and passive, had good memories and concentration, curiosity and persistence. She was interested in finding out also whether these early readers would hold on to their reading advantage over fellow classmates who had not learned to read before they came to the first grade. A follow-up study in the third grade showed that the brightest two-thirds had not maintained their advantage — the bright nonreading entrants had caught up with them. But the lowest third, who were in the "normal" range of 91 to 110 still maintained some advantage. Dr. Durkin will make another check at the end of the sixth grade, and is also now replicating the study in the New York City public schools.

It is interesting to note that in a study of Scottish children who were taught to read at the age of five and a comparable group of English children who began learning to read a year later at age six, the English children had caught up with the Scottish by about the same age as Durkin's bright non-early readers caught up.

While we are on the subject of Europe, some mention should be made of beginning reading there. In the Scandinavian countries and in Russia the schools do not begin reading instruction until the age of seven, at which time children enter the first grade. The Soviet kindergarten—which extends to age seven—features the development of oral language but makes no attempt to teach reading. Scandinavian psychologists and educators say that a delayed beginning lowers the incidence of later reading disability. Research on readiness in Sweden is being done in a program to identify potential cases of reading disability in the early weeks of the first grade. Eve Malmquist of Stockholm reports that 380 of such children were given a special program with promising results. A similar experiment with 1,200 pupils from 12 different cities is also going on, and results are to be available in 1964.

## Advantages of Not Hurrying to Begin Reading

It can be seen from the summaries of these current studies that they have not proved that reading *should* be taught in the kindergarten or earlier. In fact, several stress readiness for reading and not early instruction and two suggest that non-early readers catch up anyhow. Furthermore, none shows evidence that early reading instruction can be successful to any worthwhile degree with the majority of children who enter our schools.

Why should ordinary schools in ordinary communities not teach formal reading in kindergarten classes of 25 to 50 children?

Reading, like walking and talking, is a developmental task. A large number of research findings indicate that there is a high relationship between readiness for reading and a child's physical, intellectual, emotional, social, and experiential development. Pushing an unready child into formal instruction can create destructive feelings of fear, and inadequacy.

Various research studies have demonstrated that many young children have difficulty in associating symbols and meaning, in seeing and remembering small differences between forms, in associating symbols and sounds.

It is possible with effort to train children—like seals—to make the correct responses. But research evidence points up the futility of straining to do what can be done naturally and quickly a year or so later. There is little or nothing to gain by pushing, but plenty to lose. Early failure in school is responsible for many behavior problems.

Research findings have shown that a child's I.Q. and general readiness have a high correlation with his later achievement. Both controlled research and examination of school record cards indicate that non-early readers tend to catch up to comparable early readers.

A variety of studies have concluded that children who enter first grade after a good informal kindergarten program are better able to proceed with systematic learning than those who do not. In fact, many schools group first-grade children without kindergarten experience in separate classes.

More and more, we are finding that among our reading failures are brain-injured children with normal intelligence and no cerebral palsy. They do have severe perceptual difficulties. These children show the emotional disturbance of school failure and frustration. New York City has 36 special classes for them and also a long waiting list. It is important that teachers be trained to observe their pupils carefully for some time before rushing them into formal reading.

It is questionable that starting instruction at age three to produce sixth-grade readers at age six yields useful results. I am thinking of Bobby, who at the end of the first grade could read the *Reader's Digest* aloud fluently and stylishly. But he didn't have the background to understand what he read, and besides he really wanted to read the Hardy Boys. (Incidentally, he had had only nine months of reading instruction.)

Certain observers of kindergarten reading instruction have commented that while the teachers labored with the top group of children the other 20 or 25 sat at desks writing, tracing, or copying. They question whether the activity was worthwhile for either group in terms of the boredom of the sitters and the tension of the readers.

## Research Findings Favor Not Hurrying Children

Those doubting the value of early reading instruction can point to many research findings in their support. A number of these bear out the contention that physical, intellectual, emotion, social, and experiential readiness all play a significant part in determining whether the child will make a good start in reading. Since there are far too many studies to cover in a short time, I shall refer only to some of those dealing with two questions:

1. Is it of value to precede formal instruction with kindergarten or first grade readiness programs.
2. Do courage and patience in delaying instruction for those not ready hinder or help later reading achievement?

Lorene Teegarden compared the first grade reading progress of children who had had kindergarten training with that of children who had not. She found that those with kindergarten experience were more likely to make satisfactory reading progress and also reversed and confused letters less often. A study by Irene Fast led to a similar conclusion: children with kindergarten training ranked significantly higher in the first grade in word recognition and paragraph reading. Sister Mary Nila found that groups given first grade readiness programs before the start of formal reading showed higher reading achievement by the end of the year than did control groups taught formal reading throughout the year. Three other studies by Inez B. Petersen, Elizabeth L. Woods, and Carrie M. Scott also showed the superiority of readiness experiences and training over none in terms of latter success in reading. Helen Roche studied a group of children judged not ready for formal reading. They were given more readiness activities before formal instruction and by the fourth grade surpassed the comparison group who began formal reading immediately on entering the first grade. Beatrice E. Bradley got similar results in a study comparing children for whom formal instruction was delayed and those who began at once.

Lorraine Fuller studied a group of kin-

dergarten children with foreign language handicaps. She found that directed language experiences increased the rate of reading progress of the experimental group as compared with a control group. A study by Doris Waters and another by Selma E. Herr led to similar conclusion.

W. F. Brazziel and Mary Terrell studied the effects of a readiness program on a group of 26 Negro first graders from rural homes with few books and little interest in reading. Not only on a reading readiness test, but also on an intelligence test, the experimental group made scores close to the national norms while the control group remained very low.

A number of studies have demonstrated that starting formal instruction for children when older, not younger, pays reading dividends. B. V. Keister studied the effects of giving instruction in reading to three first-grade classes of five-year-olds. At the end of the year, her three classes achieved almost up to the first-grade norm. But after the summer vacation, the teachers reported that the children had forgotten so much that they practically had to start all over. At the end of the second grade, the children were still well below the grade norm. Jennie L. Thomson, over a four-year period, compared children who began reading before age six with those who were somewhat older. She found that the younger children not only made slower progress but did not develop as great a liking for reading as the older children.

In Oak Ridge, Tenn., Inez B. King studied 104 children who entered first grade together. She compared 54 children age five years eight months to five years 11 months with 50 children aged six years five months to six years eight months. Although the younger group was brighter, by the end of the sixth grade the older group was one year four months ahead of the younger in reading. A far higher degree of school maladjustment was reported by the teachers for the younger group.

Mabel V. Morphett and Carleton Washburne studying groups in Winnetka, Ill., found a very high correlation between mental age and reading progress. Washburne also did a well-known study of what happened when formal instruction was delayed. Four first-grade classes were carefully matched for ability. Three classes started reading instruction at the beginning of the first grade; the fourth, not till the middle of the second grade. But by the end of the third grade, the delayed class had caught up with the others, and by the end of the eighth grade was a year and a half ahead.

All the current experiments I described earlier are well worth watching. If successful, they have suggestions for alterations in our teaching of reading; but not until proof is given that they really are advantageous in terms of later achievement, and that they are good for young children. There is too much research evidence to be ignored showing that children not ready for formal instruction are liable to fail to learn, with resulting hostility towards education; and also that starting formal instruction early at best yields little or no advantage in later achievement, when non-early readers tend to catch up.

In any case, it is up to educators to protect children from the swings of fashion in public opinion and from the pressure of those who really know little about young children.

585.

189.

Vol. 8, 63

## 2. At What Age Should Systematic Reading Instruction Begin?

222.

NANCY MCCORMICK RAMBUSCH

The most effective sequence for many areas of school learning is undergoing reexamination, and in no areas are partisans more heated than in the field of "reading." However, systematic reading instruction for the child of preschool age, whatever its varied forms might be, must necessarily bear little resemblance to the stereotypical view, now rarely operative, of children of first grade age being initiated into reading in groups, all reading the same thing at the same time.

Reading implies bringing meaning to the written word as surely as deriving meaning from it. The period of the preschool years provides the raw material of the meaning that formal reading will later enhance.



There are many areas of emphasis appropriate for the preschool in developing language skills directly related to later competence, but "those" relating to the child's ability to teach himself to read individually in a school environment, are the ones I would like to emphasize.

Perhaps inadequate emphasis has been placed on the crucial role of language in early childhood, and the irreversible deficit can be caused in later life (Goldfarb), as evidenced in institutionalized children and culturally deprived (Reissman) children in urban areas.

> "It has not been customary to think of early childhood as a period of important growth in the child's knowledge and his ability to think. Priority has been given other kinds of development. For this reason it has been natural to feel that it is relatively unimportant to supply variety and depth of information to a young child. This aspect of a child's development is frequently considered as taking on real importance around six years of age when he enters the first grade of school. It is paradoxical that the learning we expect of him at this later period demands a background of experience and understanding which we have considered relatively important in early childhood. The ability to read, for example, requires a rich background of concepts and understandings from which the child derives his spoken and written vocabulary. This same skill demands the ability to discriminate between written symbols, to associate personal experiences with the symbols, or words, which stand for the experience, and to think logically in the process of following the ideas being read."[1]

> "Since language responses are learned, the laws of learning may help explain the differences among children in language proficiency. The stronger the motivation to use language, and the more effective the reward that speech brings, the more developed language behavior should become."[2]

Stimuli appear to be more distinctive when specific language labels are applied to them. One of the tasks of the teacher of the preschool child is to help the child classify his environment through the association of the appropriate word with the stimulus.

The ideas of Maria Montessori which related to the role of systematic language development and reading instruction cannot be viewed as originating with her. They are part of a tradition of physiological education derived by Montessori from Edouard Sèguin and Jean Marc Gaspard Itard. Many of the seminal notions of Montessori come from Sèguin's work, expressed definitively in his Idiocy and Its Treatment by the Physiological Method.

It was apparently not the original intent of Montessori to allow the procedures which have been associated with her "method" to attain the inflexibility they have in the hands of the most ardent and uncritical of her disciples.

At the outset, in working with young children, Montessori, applying what she knew to be successful from her work with retarded children to a normal-child population, in the way of activities demanding of the child sensory motor involvement in classification and distinction among forms, dimensions, textures, weights, had no conscious thought of teaching reading and writing systematically. Montessori folklore would have it that the children themselves asked to be taught. In any event, many children through the procedures used by Montessori in the design of activities which were child initiated, were able to learn to read in a so-called "spontaneous" fashion.

Points of interest in the Montessori approach for the teacher of the young child rest on the role which the teacher assumes in identifying for the child the objects and sensations with which he is dealing, demanding where possible that the child use the words, rather than gestures, to make his needs known, by the teacher's speaking clearly to the child and offering him opportunities to respond in the service of early language development.

In the Montessori approach, writing and reading, composing and dictating, all seem to occur in conjunction with each other. A typical sequence might be the exposure of the child to an environment in which objects are both labeled and named by the teacher and manipulated by the child. The child sees words as wholes. He also sees and feels the letters which compose the words, the letters being cut out of sandpaper and then often grouped by the teacher in her demonstration of the way they sound when together.

[1] Kenneth D. Wann, et al., *Fostering Intellectual Development in the Young*. New York: Teachers College, Columbia University, 1962.
[2] Paul Henry Mussen and John Janeway Conger, *Child Development and Personality*. New York: Harper, 1956.

586.

When the child knows some of the sandpaper "sounds," he is free to combine them in new combinations, which he can do without reading them back. This accomplishment gives rise to quite literal transcription of sounds into words at the time when the child appears to be engaged in the synthetic task of clustering sounds to create known and understood words, rather than analyzing the sounds of ready-made words. Following the composition of words with a small movable alphabet, the child might begin to compose short sentences and stories. He will often embark on copying lists of words or labels or printed material that appeal to him at this time, quite independently of his interest in composing words or transcribing conversation.

The use of simple command cards by the teacher, inviting him to engage in certain activities, which he learns, through reading—provides a transitional step in his development to the point where he can read, with comprehension books, always easy enough for him to master completely.

All of this activity, as it is carried out in a Montessori class, alternates between individual and small groups. Matching names to pictures might be a form of lotto, or it might be an individual exercise. The teacher is present as the resource person who can help the child move horizontally to more activities of one type or vertically to a more difficult or novel facet of learning in the sequence leading to reading.

There is a real emphasis on self-selection of activities in a Montessori learning situation which reflects the thinking of Montessori. Therefore, as many children come to school motivated to learn to read by parental pressure, others evidence no interest at all. This lack of interest the teacher must respect, because the motive for pursuing independent activity must ultimately be an intrinsic one. The teacher in her many individual presentations of activities offers the children opportunities to see how various sequences develop, and if a child is sufficiently interested, he will at least observe the work of the others, whether or not he participates.

The emphasis on the appropriate form of language development for preschool children cannot be divorced from the role of language as a learned skill, or the role assigned to it by the culture as an important one.

Systematic instruction leading to reading should be a concern of teachers of young children, if by this is meant attention paid to the developmental stages of language, some of which, if ignored in the early years, appear, at present, to lead to irreversible language deficits.

A language-rich school environment for young children, in which the teacher articulates, identifies, relates language to the experiences of the children, is an attempt at systematic exposure. Activities which provide for differentiation in visual perception are appropriate for the preschool child.

Most of these activities exist in some measure in nurseries and kindergartens, but they are not always thought of in their relation to language development.

The group of Doctors Sèguin, Itard, and Montessori, who coupled careful observation of the child with manipulative material through which he could relate experience to language and ultimately to its expression in symbolic form, were suggesting a form of systematic activity, not as an inflexible linear sequence, such as the preprimer, primer, first reader would provide, but as a cluster of experiences which would help the child pursue visual clues, and transcribe speech into symbolic written form, prior to the formal exercise of reading, which should ideally build on prior experience.

190.

ASSOCIATION OF CHILDHOOD EDUCATION INTERNATIONAL

# Perspectives: Teaching Young Children to Read

581.

NILA BANTON SMITH
Glassboro State College

THERE ARE strong surges of thinking in regard to all aspects of education at the present time. We seem to be experiencing a veritable crescendo of new ideas about improving instruction in science, social studies, mathematics and reading. Fresh schools of thought are emerging, novel materials are being developed, opinions pro and con are being advanced with vigor, and educational controversy is running rampant.

Among present controversial issues perhaps no one of them is more widespread among parents and educators than that of teaching young children to read. There are some who are forcefully arguing for the early teaching of reading; others are opposing this practice with vehemence.

What troubles me is that the arguments seem to be *all* black or *all* white. There are many variables in this complex situation and numerous shadings of gray between the two extremes of thought. Yet most people talk, speak and write in terms of one or the other of two broad alternatives: Shall we teach young children to read or shall we not teach young children to read? We need to be more specific. I am convinced that this controversy would be mellowed, reduced, in many cases resolved, if we would break down into specifics the broad implications of this topic as a whole. What do we mean by the generic term *children?* What do we mean by the broadly applied adjective *young?* What do we mean by the prepositional phrase *to read;* and lastly, and perhaps most important, what do we mean by the word *teaching?* It is hoped that pointing out some of the shades of meaning in each of these terms will serve to clarify the concept of the overly-generalized subject, "teaching young children to read."

## What Do We Mean by *Children?*

When we talk about teaching reading to young *children,* are we talking about the great mass of offspring representing the plural of *child?* Or are we talking about some particular group or some individuals, having certain characteristics of their own but still classifiable under the generic term of *children?*

Are we talking about children like John, the son of a professor who is a colleague of mine? Upon going to the home of this colleague I was introduced to Nancy who is in the second grade and to John who had just turned four. Mrs. Miller said, "Nancy is reading at fourth grade level, and she spends hours reading to John. He begs her to read to him. "Can you read, John?", I asked. The answer was forthright, "Not yet but I will be soon." And I am pretty sure that he will be reading soon. The children evidently have high intelligence, they live in a cultured home, they have

588.

had rich experiences, they have an ample library of children's books. The father, mother and sister are all avid readers. John lives in a stimulating reading environment.

John and Nancy represent the kind of children whom most investigators are talking about in their studies of early readers. Plessas and Oaks *(1)* summed up the characteristics of children in these studies and stated:

> . . . these early readers can be characterized largely as having superior intelligence, having fathers who have mainly clerical and professional positions, living in homes with many encouraging and stimulating activities relating to reading . . .

Bob and Janice are children in another home that I had occasion to visit recently. Janice is eight and Bob is three. Their mother finished high school; their father quit at tenth grade. Both parents work at non-professional and non-clerical jobs. Janice went to school on the day of my visit. Bob spent the day with a woman who does babysitting in her own home.

"Do you ever read to Bob?", I asked Janice. "Oh, no" replied Janice. "We don't have any books, and beside I hate reading." Finally I edged this question across to Mrs. Steele. "Do you read to your children when they are little?" "Goodness, no. I'm too tired and when I have a little time at home I have too many other things to do to bother reading to them. I hardly find time to take a few looks at television, myself." Imprudently, I pursued the matter further, "Do you think Bob might be more interested in reading in school if he had some children's books, and if you or Janice might squeeze out a little time to read to him?" The answer was disappointing. "When he goes to school the teacher will take care of his reading. That's her job."

May we ask, do Janice and Bob represent the kind of children we are talking about when we glibly discuss the topic of teaching young children to read?

Here is another example. It is a description which a first grade teacher gave me concerning her class:

> At least two-thirds of the children would be termed disadvantaged. There are perhaps a half-dozen in the class who are blessed with both a mother and a father in the home and who are reasonably well clothed, fed, and loved. Of my twenty-nine children, fifteen are Puerto Rican, five are Negro from poverty homes, and the remaining nine are low-middle-class white. They have a median I.Q. of 86. I suspect they would rate low on a maturity test. At the end of the school year last spring, my children in a similar class indicated a beginning kindergarten level of maturity on the Peabody Vocabulary Test. One child in the class is emotionally disturbed, three youngsters have severe speech problems, and all are meager in their language expression. They are creative, however, in such areas as music, art and dramatic play. We have the best finger-painters in Jackson County. On the other side of the ledger I must say that when it comes to reading they just don't catch on; and I am often confused by such expressions as "My Mudder, he . . . ;" "My toof jess fall down . . . ;" "I gots de stomick ache in my froat . . . ;" "Land where da Peelgrims fried . . . ;" and so on.

Now, when we are talking about teaching reading to young children, are we including in this broad concept the kind of children that this first grade teacher has in her class?

For years research has revealed again and again vast individual differences in children physically, intellectually, emotionally, linguistically, in rates of growth, and in degrees of motivation to learn. Research also has shown that reading success is related to these factors. Children are different from one another and reading ability differs as children differ.

A striking example of individual differences is apparent in a longitudinal study which has been under way for several years. Durkin *(2)*, the investigator, has followed groups of children who read before coming to kindergarten as they proceeded through the grades, and she has found that they have been consistently higher in reading achievement than the children in her control groups who did not read before first grade. The non-early reading groups were matched with the early reading groups in intelligence, in chronological age, and in the school which they attended. An important question yet to be answered is why didn't the children in this comparably bright control group learn to read early? Some differences between these children and the early readers did come out in interviews with parents. The early

readers walked and talked at earlier ages; they tended to come from smaller families; they spent fewer hours before television sets; they were more often content with quiet activities (drawing, coloring, looking at books) while the non-early readers had been more involved in active play, being fascinated with toys rather than coloring books, blackboards, pencil and paper.

The differences mentioned above were obtained through interviews and are significant. When additional research of this nature proceeds with its objective being to probe deeply into individual differences with a variety of appropriate tests, undoubtedly many differences will be found in regard to the fundamental growth areas mentioned earlier.

The need for adjustments to different kinds of children was evidently strongly sensed by Mason and Prater *(3)* in their review of 43 studies having to do with children and early reading.

In their summary the authors ask the question of "whether or not we should teach reading to preschool and kindergarten children." Then they draw some preliminary conclusions from the comparative studies included in the summary. Some of their conclusions are:

> When exposed to the same program younger children make less progress than older ones with similar levels of intelligence.
>
> That the best age for beginning reading is dependent upon several other variables such as the instructional materials, class size, the pacing of the program, and teachers' expectancies.
>
> That the control of attention is apt to be difficult for young children, and that attempts to force learning may lead to emotional reaction.
>
> Unless we improve in gearing our instruction to the student's ability to learn and to the amount of his previous learning, the answer to the question posed at the beginning of this paragraph will be *no*.

In regard to the last conclusion, particularly in so far as the kindergarten is concerned, I am not satisfied to leave this matter in the subjunctive mood. In my opinion we should be taking immediate and constructive steps "in gearing our instruction to the student's ability to learn and to the amount of his previous learning" and to many other individual differences. In doing this the answer may well become "yes" for certain children, provided that the "instruction" is carefully defined. Later on in this paper an attempt will be made to sketch broad outlines of possibilities of instruction for different types of children.

## What Do We Mean by *Young?*

Webster defines *child* as "a young person at any age between infancy and maturity, but most commonly one between infancy and youth." According to this definition "young" covers a pretty wide spread of ages. Authorities in childhood education and child psychologists are generally agreed that the period of early childhood extends from birth through the eighth year of life.

When we speak of young children do we mean the two-year-olds whom one writer suggests as subjects for word-card flashing? Do we mean the three- and four-year-olds of nursery school age? Do we mean the five-year-old in kindergarten? Do we mean the six-year-old in first grade or the eight-year-old in third? Technically "young" used in modifying the word "children" covers a lot of territory, and age makes a tremendous difference in teaching reading. When we are talking about teaching reading to "young" children we had better specify whether we are referring to two-year-olds, five-year-olds, six-year-olds or eight-year-olds.

And even if we do specify chronological age, we must go further and indicate the kind of children at this chronological age whom we have in mind; and, if possible, give some information in regard to their stage of development in many growth areas other than chronological age.

## What Do We Mean by "to Read"?

Many people seem to labor under the impression that "to read" means to recognize a few words on the television screen, on flash cards, or in a book. This is an exceedingly limited and distorted viewpoint.

What does "to read" really mean? What are the chief constituents of the reading process?

First, and of basic importance, is the development of interest in reading. Thou-

sands and thousands of individuals today possess the skill of reading but never read a book or anything else, not even a newspaper. Studies repeatedly show meager reading habits in many students in school and college, in adults in life, and even in the aged whom we might expect to welcome leisure time in which to read. Without a thirst for reading, the skills perform only a minor part of the function which they should serve.

Little John, the professor's son who was surrounded with books and who begged his sister to read to him, was probably establishing an interest that will remain with him throughout life. Bob, who had no children's books in his home, whose mother was too busy to read to him, and whose sister hated reading, may wind up completely lacking in reading interest as are many adults at the present time.

May I ask is the development of thirst for reading uppermost in the minds of many parents who are now teaching their preschool children reading skills? Judging from the large numbers of students and adults who can read but do not, is it possible that we, as teachers, haven't been doing as good a job in kindergarten and primary grades as we might have done in establishing this primary constituent in the learning-to-read process? It would be of great signficance if all of us would work toward greater improvement in this area.

Another fundamental needed in acquiring the process of reading is word recognition, the ability to decode words. This skill, however, is only a medium to use in realizing the other components of the reading process. Nevertheless, it appears that this one skill is considered by many people to be the end point in teaching young children to read. It is regrettable, indeed, that so many advocates of early reading mean word recognition only when they speak of reading. Overemphasis on this extreme concept of the reading process limits the reading growth possibilities of the child in other ways.

A third constituent of the reading process is that of understanding meanings given through word symbols on printed pages. This is the real purpose for which reading is carried on. Yet, one rarely hears any mention of comprehension by those advocating the teaching of reading to young children. We might inquire seriously, "Why is it that this very significant element in efficient reading is so often disregarded in accounts of teaching reading to young children?" This isn't quite understandable.

We have some evidence that early readers cannot grasp meanings commensurate with their ability to pronounce words. For example: McCracken *(4)* recently reported a study in which eight children who read before first grade were observed and tested over a two-year period. Their average I.Q. was 132. They quickly mastered word-pronouncing and oral reading skills and made test scores above average. However, the investigator reported, "The ability to comprehend materials which they could read fluently orally was a problem for three of the children in March of first grade and for seven of these children at the end of second grade."

If gripping national and international problems are to be faced and solved, the adults of tomorrow must be keen interpretors and critical evaluators. May we ask, then, is it fair to the young children of today to implant in them the impression that all there is to reading is word-calling as is often done? Pronouncing words is not enough. Meanings are worthy of consideration, also.

This brings us to a discussion of concepts. Comprehension is based on concepts. Through the use of concepts the child in early stages brings meanings to symbols rather than getting meanings from symbols. Concepts of young children need development, enrichment and clarification.

A study that was carried out several years ago was very significant. It was conducted by Cantor *(5)* and it had to do with concept development in the kindergarten. The investigator analyzed the preprimers and primer which kindergarten children would use in the first grade, for concepts. Then she planned a series of excursions designed to acquaint kindergarten children with these concepts. Next, she organized matched groups of kindergarten children. Some groups were

taken on the excursions; others were not. The groups having the excursions made higher scores on their readiness tests, and later in first grade on their reading tests than did the others. This is convincing evidence that concept development contributes to beginning reading.

One more constituent of the reading process will be mentioned—that of implications for developing rate in reading. In this age of speed, rapid reading is a desirable skill to develop and while young children definitely should not be subjected to speed pressure, the foundations should be laid from the beginning. Does pronouncing individual words or an overemphasis upon scrutinizing words for phonetic elements serve to develop fluency? Research says that it doesn't. Experiences in reading words in phrases and in sentence is necessary in laying the foundation for fluency.

In summarizing different viewpoints in regard to the meaning of the reading process, two questions will be asked:

1. When we speak of "to read" in discussing the topic of "teaching young children to read" do we mean that reading is simply a matter of saying words in response to a visual presentation of printed symbols?

2. When we speak of "to read" do we mean the broad process of developing deep and abiding interest, skill in identifying words, ability to grasp meanings, and habits of reading phrases and sentences?

My readers may decide for themselves to which of these meanings they subscribe, and which one they support in practice.

## What Do We Mean by the Word "Teaching"?

"Teaching" is perhaps the most significant word in the whole controversial topic of "teaching young children to read," and the one concerning which there are the largest number of shadings in meaning.

When we think of *teaching* young children to read, do we mean:

1. Flashing word cards before the child, saying each one, and asking him to repeat it?

2. Drilling the child on the sounds of phonetic elements, presenting them on cards or paper, having him repeat them, and then telling him how to apply them when sounding words?

3. Having children work through a phonics workbook or kit designed for kindergarten?

4. Having children use a readiness workbook that accompanies a basal reading program?

5. Organizing a kindergarten class into three groups and following a teachers' manual in teaching the children to read from the successive preprimers and primers of a basal reading series?

6. Building a permissive reading environment, whetting interest by much reading to children from books, providing abundant contacts with reading symbols in functional and meaningful situations, recognizing and encouraging those who already read or begin to read, being willing to wait for reading maturation to come in those who don't?

All six of the above practices are in use in different parts of this country at present. So "Teaching" means different things to different people. When one person is talking about teaching to young children he may have in mind any one of the six practices I have mentioned. The person to whom he is talking may have an entirely different one in mind. How futile it is to talk in general terms about the "teaching" of reading to young children.

The great majority of specialists in early childhood, kindergarten teachers, and reading authorities are deeply concerned about *pressures* to teach formal reading to young children *indiscriminatively*. These people recognize the present trend to raise skills to higher levels of achievement in all fields. They are earnestly seeking ways to meet this demand of society at the kindergarten level without sacrificing their philosophy arising from great funds of knowledge in regard to the characteristics and needs of young children and in regard to the complexity of the reading process. Perhaps clearer understandings of the shades of meaning in the concepts of "Teaching Young Children to Read" will help in reconciling these viewpoints and in working out prudent applications of the concept as

a whole. If this paper has contributed anything at all to this end, its purpose will have been accomplished.

## REFERENCES


1. Plessas, Gus P. and Oaks, Clifton R., "Prereading Experiences of Selected Early Readers," *The Reading Teacher,* 17 (January, 1964), 241-45.
2. Durkin, Dolores, "Children Who Read before Grade 1: A Second Study," *The Elementary School Journal,* 64 (December, 1963), 143-148.
3. Mason, George E. and Prater, Norma Joan, "Early Reading and Reading Instruction," *Elementary English,* XLIII (May, 1966), 483-489.
4. McCracken, Robert A., "A Two-Year Study of the Reading Achievement of Children Who Were Reading When They Entered First Grade," *The Journal of Educational Research,* 59 (January, 1966), 207-10.
5. Cantor, Alma, *An Historical, Philosophical, and Scientific study of Kindergarten Excursions as a Basis for Social Adaptation and Reading Readiness.* Master's Thesis, p. 191, Cincinnati, Ohio: University of Cincinnati, 1935.

Combining Research Results and Good Practice
Conference Proceedings of IRA; Vol. 11, Part 2, 1966

191.

A. Sterl Artley
University of Missouri

# 1. Reading in Kindergarten

Along with the controversies over phonics, programed instruction, and the inital teaching alphabet, the question of reading in kindergarten has aroused considerable discussion. On examination, however, this question is only part of a much broader controversy having to do with pre-school education—namely, the place and function of the kindergarten as a segment of the educational sequence.

## Advisability of Introducing Reading in Kindergarten

Many educators are raising the question of whether the needs of today's pre-schoolers are being served adequately by a kindergarten program which they contend is still operating under a philosophy little changed from that current in the twenties and thirties. Critics contend that five-year-olds have acquired larger vocabularies, have lived in the verbal environment of television, have traveled, and have lived in homes where parents have been able to surround them with the advantage of a higher standard of living. They show that some children are already reading upon entry into the first grade, and that others are ready for a more specific type of readiness program than that traditionally provided in kindergarten. Consequently they challenge those responsible for early childhood education to rethink the kindergarten program and to formulate goals and practices more in keeping with the current needs of many young children. Among these critics are Rader (13:137-42); Hillerich (12:569-73); Austin (1:57, 90); Sutton (15:297-300); and Durkin (8:3-7). Because reading experiences offer an opportunity for intellectual stimulation and continued language growth, critics contend that their use for young children should not be denied.

Possibly the major question of whether reading should be introduced in kindergarten and, if so, to whom, can be answered best by applying to the five-year-old group what we already know and believe about indi-



594.

vidual differences. For years we have been saying that reading instruction should be postponed for some entering first graders because they are not ready to succeed in initial instruction until after a prolonged period of readiness. These children may be limited in intelligence, conceptual background, oral language facility; they may be lacking in motivation and perceptual skills. These children may be in need of a full year of an enriched readiness program with a systematic reading program postponed until they are nearer seven. By the same token, some five-year-old children at the opposite end of the distribution, because of strengths in the same areas where there are limitations for the other groups, will be ready for, and can profit from, the intellectual stimulation afforded by an upgraded readiness program, and eventually by reading instruction itself. In other words, there would be logic to the extension of the readiness concept downward *for some* in the same way that we extend it upward for others.

Durkin (*10*:7-16) takes an unequivocal stand on the question of reading in kindergarten. As a result of data that she has accumulated from the studies of early readers she says that "the only possible and honest answer for me is to say definitely and even enthusiastically that *some* five-year-olds are more than ready to read, and secondly, that kindergarten has the responsibility of offering them the opportunity to learn." On this same point Sutton (*15*:297-300) contends that we have underestimated the reading potential of many young children and, in the same way that it is unwise to force reading on all because some are not ready for it during the kindergarten year, it is equally "silly and wasteful to withhold instruction in reading from all because some are not ready for reading at five years of age."

As a result of their extensive study of reading instruction in the United States, Austin and Morrison (*2*:219) in the second Harvard report, *The First R*, recommend "that all school systems establish kindergartens; that appropriate reading activities be initiated for those children who are already reading and for those who appear to be ready to begin reading, and that the kindergarten program be adjusted accordingly to each child's strengths and weaknesses as revealed by an appraisal of readiness."

Thus we see from a sampling of the authorities who are speaking to this question that there is consensus in their thinking that *for some children,* for those who evidence readiness, reading instruction might well be initiated during the kindergarten year. Of course, there is the assumption too that the kindergarten program should include definite provisions

595 1

for the promotion of those skills and understandings that put a foundation under the reading program, whether reading is initiated for some in kindergarten or for the majority somewhere in grade one.

## Nature of Current Programs in Reading

What is the nature of those kindergarten programs that include some type of pre-reading or reading instruction, and what are their results? Possibly the program most widely advertised is the one in Denver which is being conducted under the direction of Joseph Brzeinski (*3*:5058; *4*:16-21). This program, initiated in 1960 and carried out over a five-year period, involved 61 control kindergarten classes and a like number of experimental classes. Children in the control groups followed the regular kindergarten program while those in the experimental groups received instruction in "beginning reading activities" for approximately twenty minutes each day. The reading activities included practice in auditory and visual discrimination, in distinguishing letter forms and letter names, and in using beginning consonant sounds with contextual clues to identify a printed word.

At the end of the kindergarten year the structured program seemed to be more effective than a program providing incidental readiness instruction. Though both groups made gains, there was a difference of 8.9 test score points between the groups in favor of the experimental groups. At the end of the first grade the test scores suggested that the experimental groups scored significantly higher than did the control groups who had the regular kindergarten program. Moreover, optimum reading achievement was obtained where the first grade program was adjusted to take advantage of the gains made through the early start in kindergarten. Significantly though, Brzeinski points out, not all children in the experimental groups progressed at the same rate. Some children made little or no progress in acquiring the skills taught through the program while others were able to read pre-primers and primers during the last six weeks of the program.

In answer to the question frequently raised as to whether early readers have more adjustment or sensory problems, Brzeinski indicates that virtually the same percentage of children in both groups showed corrected vision, hearing loss, and adjustment problems. He adds that "teaching beginning reading in kindergarten neither created nor prevented problems in these areas."

Sutton (*14*:234-40) reports an interesting action study carried out in

596

Muncie, Indiana, to determine the effect of kindergarten instruction in reading for those who showed an interest in it. A reading center consisting of assorted pre-primers and easy-to-read books was set up in two kindergarten rooms. Any children who showed an interest in the books were given ten to fifteen minutes of instruction daily. It is readily evident that this was a much less structured program than the one described by Brzeinski. Of the 134 pupils in the kindergarten, 46 took advantage of the reading instruction and at the end of the year the mean grade level of the reading group was 1.78.

A later report by Sutton (*16*:192-96) followed these 46 early starters into grade one. In January of grade one the kindergarten readers had a mean grade score of 2.6 and the kindergarten non-readers of 1.7; in June their mean reading level was 3.6 in comparison to the kindergarten non-readers of 2.6. Of course this study merely shows what some children who are verbally oriented can do in reading when given the opportunity in kindergarten. It does not show what they might have done had reading instruction been postponed for them until they entered grade one. Regardless of what it might have been, it does appear that an injustice would have done to these 46 children had the teachers failed to capitalize on the opportunity for reading at an early age.

An interesting sidelight on the study reported by Sutton came about as a result of first grade class assignment of the 46 early-readers. Twenty-five of them were assigned to a high reading ability homogeneous class, while the remaining 21 were interspersed among the other three regular first grades. At the end of grade one the children who comprised the homogeneous group earned a mean reading score of 21.5, while those in heterogeneous groups earned 15.4. Apparently early-starters, placed in a group where they capitalize on their early start, can be expected to do better than similar children placed in groups where they must mark time while others are getting started.

Georgiady, Romano, and Baranowski (*11*:306-11) report a carefully executed study into the readiness of kindergarteners for initial experiences in recognizing words and symbols. One hundred children were placed in four classes: two control and two experimental. The children in the experimental groups were instructed in memorizing a set of 33 items consisting of discrete words and pictures. Final results indicated that children in the experimental groups made gains twice as great as those in the control groups.

Though this study shows that kindergarten children can, with deliber-

ate effort, be taught to recognize and remember picture and verbal symbols, its significance shows up in the comments made by the participating teachers. Some children, they reported, seemed to take pleasure in and were challenged by the learning of symbols. Other children in the experimental groups seemed bored by the whole process and chafed at having to learn symbols while their friends were having fun painting or doing other interesting things. The teachers felt some children showed a lack of readiness manifested in inattentiveness, boredom, nail-biting and even crying at having to participate. Such reactions occurred in some children even though they scored high on the test. The teachers concluded that instruction should be offered selectively to those who, on the basis of a screening test, evidenced sufficient maturity to undertake that kind of work.

Even with the success of symbol learning as is shown in this study, and without the critical comments of the experimental teachers, I am sure that the authors would not recommend that reading be taught in the manner carried out in the experiment, nor to all children. This study dramatizes, it seems to me, the fact that symbol learning is selective and that it cannot be prescribed for all children. It also offers stimulating thought on the purposes of the kindergarten program as it relates to the needs of young children. As Durkin (*6*:23-27) comments, it should be a program that neither frustrates nor bores. It should "stimulate the most able child without undermining the least able in the group."

Durkin (*9*:76-80) has been reporting periodically on the progress of the 49 Oakland children who had learned to read prior to entrance into the first grade. You will recall that in this study (*5*:163-66) the mean reading level of the group on entrance into the first grade was 1.9. At the end of grade one the mean grade level was 3.7, and at the end of grade five it was 7.6. Moreover, further analysis of all her data collected on these children indicates that early achievement in reading had no detrimental effect on subsequent achievement. In fact, she says, "some of the data suggest that an earlier start in reading leads to greater achievement in future years."

Durkin rightly points out than one should not hastily assume that her findings offer support for earlier school instruction. Her 49 children were those who learned at home. They were highly verbal, they wanted to learn to read, and there was someone in their environment who took an interest in answering their questions. Neither, she says, do her findings discourage school help prior to first grade. "The intent . . . is to en-

598.

courage appropriate school help for pre-first-grade children who are ready to profit from it." Elsewhere Durkin (7:274-76) writes, "If the kindergarten program is to be successful in preparing children for first grade, then many of the activities should be very directly related to the later job of learning to read. For those children who are already reading, the responsibility of the kindergarten then becomes one of helping them develop into even better readers."

From the studies referred to here as well as from others, which neither time nor space permits us to discuss, there seems to be considerable agreement among the writers that the kindergarten has a definite role to play in promoting readiness for reading, and that the program must do more than pay lip service to this goal. For the majority it must provide more than games, coloring, singing, rhythms, and storytelling. Although for some children, particularly the culturally deprived, about whom we are now learning more, this may be as far as the kindergarten program should go. For another group a program that offers the opportunity for a more mature level of language growth will be both the opportunity and responsibility of the kindergarten teacher.

## REFERENCES

1. Austin, Mary. "Reading in the Kindergarten," *The Instructor* (March, 1965), pp. 57, 90.
2. Austin, Mary, and Coleman, Morrison. *The First R.* New York: Macmillan, 1963, pp. 219.
3. Bezeinski, Joseph. "Reading in the Kindergarten" in Warren Cutts (Ed.), *Teaching Young Children to Read.* Washington: U.S. Gov't Printing Office, 1964, pp. 50-58.
4. Bezeinski, Joseph. "Beginning Reading in Denver," *The Reading Teacher,* 18 (October, 1964), pp. 16-21.
5. Durkin, Dolores. "Children Who Read Before Grade I," *The Reading Teacher,* 14 (January, 1961), pp. 163-166.
6. Durkin, Dolores. "Reading Instruction and the Five-Year-Old Child," in J. Allen Figurel (Ed.), *Challenge and Experiment in Reading.* New York: Scholastic Magazine, 1962, pp. 23-27.
7. Durkin, Dolores. "Kindergarten and Reading," *Elementary English,* 39 (March, 1962), pp. 274-276.
8. Durkin, Dolores. "Early Readers—Reflections After Six Years of Research," *The Reading Teacher,* 18 (October, 1964), pp. 3-7.

599.

9. Durkin, Dolores. "A Fifth-Year Report on the Achievement of Early Readers," *The Elementary School Journal,* 65 (November, 1964), pp. 76-80.
10. Durkin, Dolores. "Beginning Reading: When and With What Materials," in Coleman Morrison (Ed.), *Children Can Learn to Read: But How?* Rhode Island College Reading Conference Proceedings. Providence: Rhode Island College, 1964, pp. 7-16.
11. Georgiady, Nicholas, Louis Romano, and Arthur Baranowski. "To Read or Not to Read—in Kindergarten," *The Elementary School Journal,* 65 (March, 1965), pp. 306-311.
12. Hillerich, Robert. "Kindergarteners Are Ready! Are We?" *Elementary English,* 42 (May, 1965), pp. 569-573.
13. Rader, William. "How Much Can and Should We Teach Our Children," *The Elementary School Journal,* 64 (December, 1963), pp. 137-142.
14. Sutton, Marjorie H. "Readiness for Reading at the Kindergarten Level," *The Reading Teacher,* 17 (January, 1964), pp. 234-240.
15. Sutton, Marjorie H. "Listen to the Little Ones," *The Elementary School Journal,* 64 (March, 1964), pp. 297-300.
16. Sutton, Marjorie H. "First Grade Children Who Learned to Read in Kindergarten," *The Reading Teacher,* 19 (December, 1965), pp. 192-196.

600.

Vol. 10, 1965

192.

# 2. Predicting Reading Achievement Through Readiness Tests

THOMAS C. BARRETT
University of Wisconsin

INTEREST in predicting first-grade reading achievement was the result of two occurrences in the middle 1920's. First, it was observed that children were being retained in first grade because of their inability to learn to read. The reason for many such failures was attributed to the general practice of introducing all children to formal reading instruction at the outset of school. Second, educators took the position that a reading readiness period at the beginning of first grade for certain youngsters would enable them to learn to read without undue difficulty. These events brought into focus the importance of one instructional decision: the point at which a child is ready for formal reading instruction. Also indicated was the need for predictive accuracy upon which to base this crucial instructional decision. As a result, the search has been under way since 1930 for measures of pre-reading skills, abilities, and understandings (factors) which best predict first-grade reading success.



## The Content of Readiness Tests

One might expect that thirty-five years of research into the predictive validity of readiness factors would have produced a high degree of agreement in the content of commonly used standardized readiness tests. An analysis of five such tests,[1] however, did not fulfill this expectation, since the results, presented in Table I, indicated with two exceptions that there was little agreement among the tests in terms of content. The exceptions in this instance were the general factor of visual discrimination, which was measured by at least one subtest in all of the tests, and the visual discrimination of words, a specific visual discrimination skill, which was evaluated by four tests.

From this point on, the table shows that there was an ever lessening agreement among the tests in the general and specific factors measured. Even with respect to the seemingly important general factor of auditory discrimination, the tests were not in unanimity, since two of them failed to include a single subtest that could be classified in this area.

If this disparity in the content of the five tests surveyed can be generalized to all tests, it suggests that test makers and test users might consider recent reading studies dealing with prediction to determine whether there are two or three specific readiness factors which should be a part of most readiness tests.

At this time, three specific factors appear to deserve careful attention. The first such factor is visual discrimination and knowledge of letters, which appears to be both an index of visual discrimination and experiences with printed materials. The value of this specific ability as a predictor of reading achievement is underscored in investigations by Gavel,[2] McHugh,[3] and Barrett.[4] Auditory discrimination of beginning sounds in words is a second specific factor which appears to possess useful diagnostic and predictive qualities. An investigation by Dykstra[5] comparing the predictive precision of a number of auditory discrimination tasks indicated its importance. A study by Clymer and Barrett[6] gave further support to the predictive significance of this factor.

Finally, Jean Turner Goins[7] found that the ability to keep a figure in mind against distraction, as demonstrated by a student's

TABLE 1
THE CONTENT OF FIVE STANDARDIZED READINESS TESTS

| Readiness Factor Measured | Number of Tests Measuring the Factor |
|---|---|
| Visual Discrimination | 5 |
| Visual Discrimination of Words | 4 |
| Visual Discrimination of Letters | 2 |
| Visual Discrimination and Knowledge of Letters | 2 |
| Visual Discrimination of Pictures | 1 |
| Miscellaneous Visual Discrimination | 1 |
| Auditory Discrimination | 3 |
| Discrimination of Beginning Sounds | 1 |
| Discrimination of Ending Sounds | 1 |
| Discrimination of Both Beginning and Ending Sounds | 1 |
| Word Meanings and Concepts | 2 |
| Listening Comprehension and Use of Oral Context | 2 |
| Visual-Motor Coordination—Copying | 1 |
| Learning Rate of Words | 1 |
| Number Concepts | 1 |
| Word-Picture Relationships | 1 |

[1]The tests analyzed were: Gates Reading Readiness Tests; The Harrison-Stroud Reading Readiness Profiles; Lee-Clark Reading Readiness Test; Metropolitan Readiness Tests; Murphy-Durrell Diagnostic Reading Readiness Tests.

[2]Sylvia R. Gavel, "June Reading Achievements of First Grade Children," *Journal of Education*, 140 (February 1958), pp. 37-43.

[3]Walter J. McHigh, "Indices of Success in First Grade Reading," a paper presented at The AERA-IRA Meeting, February 15, 1962.

[4]Thomas C. Barrett, "Visual Discrimination Tasks as Predictors of First Grade Reading Achievement." *The Reading Teacher*, 18 (January 1965), pp. 276-282.

[5]Robert Dykstra, *The Relationship Between Selected Reading Readiness Measures of Auditory Discrimination and Reading Achievement at the End of First Grade*. An unpublished doctoral dissertation, University of Minnesota, 1962.

[6]Theodore Clymer and Thomas Barrett, an unpublished investigation, 1964.

[7]Jean Turner Goins, *Visual Perception Abilities and Early Reading Progress*, Supplementary Educational Monographs. No. 87. Chicago: University of Chicago Press, 1958, pp. 41-87, 96-108.

601

ability to complete a mutilated design when a completed design was in view, was a relatively good predictor of first-grade reading achievement. Goins concluded that tests which measure this perceptual ability might prove to be valuable additions to reading readiness tests. Barrett[8] provided cross validation for both her finding and conclusion in a later study.

The point here is not that all readiness tests should be alike. On the contrary, it is that enough information is available in this general area of study to provide worthwhile suggestions about some specific factors that might prove valuable, both predictively and diagnostically, as a core for almost all readiness tests.

## Readiness Tests as Predictors of Reading Achievement

It would be good to be able to say that readiness tests, in their present state of refinement, are perfect predictors of first-grade reading achievement. Unfortunately this is not the case, since correlation coefficients between various readiness tests and standardized measures of reading have been reported to range from .40 to .70. This state of affairs should not be viewed as hopeless, however. In the first place, the predictive validity of present readiness tests is comparable to other instruments used for the purpose of prognosis in education. For example, intelligence tests are far from perfect predictors of school achievement, although some people use them as if they were. The fact is that tests and test scores are not infallible and that tests should be regarded in this light whether they are readiness tests, intelligence tests, or achievement tests. A second hopeful sign is that readiness tests appear to measure factors which do have a relationship with first-grade reading achievement. Moreover, it appears that the more closely these factors resemble the actual reading act, the higher the relationship between the readiness test and reading achievement will be. Although not perfect predictors, readiness test results can help teachers predict future achievement and can, as a result, help them with instructional decisions.

Since the position taken in this portion of the paper implies that readiness tests have some value to teachers, it seems appropriate to close with three observations concerning the possible uses of readiness tests as predictors of reading achievement and indices for instructional decisions.

First, readiness tests should be selected with specific instructional situations in mind, since it is possible that tests may predict more accurately in certain school systems or groups of schools within a system than they do in others. Other variables, such as the reading program itself and measures used to evaluate the outcomes of the program, may affect the predictive validity of a given readiness test. Various readiness tests should be tried out in specific situations before a final decision on adoption is made.

Second, not all the important readiness factors are measurable with paper and pencil tests. Therefore, teachers can enhance their predictions by combining readiness tests results with systematic observations and evaluations in such areas as oral language facility, informational background, story sense, interest in reading, and attitude toward reading.

Finally, teachers should analyze their reading programs to determine whether certain skills and abilities appear to be vitally important to success in beginning reading. For example, one might hypothesize that visual discrimination of letters and words would be a critical skill in a room where the teacher employed a predominantly visual approach to teaching reading. Contrarily, if a teacher gives a strong emphasis to phonics from the beginning, auditory discrimination might be a crucial factor for success. With these and other possibilities in mind, teachers may find readiness tests helpful as diagnostic instruments which provide clues to specific instructional emphases needed by certain pupils.

[8]Thomas Barrett, *loc. cit.*

193.

Vol. 10, 65

450

# 4. Providing for Individual Differences at the Reading Readiness Level

DOROTHY M. DIETRICH
Uniondale, New York,
Free School District



MOST EDUCATORS agree that the child's introduction to a formal school experience is an extremely important step in his life. We have come to believe very strongly that kindergarten has a role to play in the life of each and every child and that no child should enter a first grade class without kindergarten exposure.

Originally, kindergartens were organized as separate units apart from the regular elementary school. It is unfortunate that this pattern persists for there is a strong need for kindergartens to become an integral part of the total educational scheme. As a result of this division between kindergarten and the elementary grades, we find kindergarten teachers losing tenure if they want to teach a "regular" grade; administrators overlooking the curriculum aspects of kindergarten because "the children merely play;" a general feeling on the part of school personnel and the community that kindergarten training isn't very important or necessary. Thus, we now have teachers coping with two sessions a day, each session two-and-a-half-hours in length, and each session with an enrollment of thirty to thirty-five youngsters.

The kindergarten teachers are basically to blame for part of this situation. Their aims and purposes are often vague and general. While they are usually aware of the differences in the growth and development of the children within their classes, they make little effort to group for instruction. Many kindergarten teachers say that grouping at this level is impossible. Yet, I have seen many kindergarten programs conducted on a small group and at times even individual basis.

Kindergarten experiences are supposedly designed to provide readiness for the more formal learning which will take place when the child enters first grade. If this idea is true, then it becomes our responsibility to find out what experiences youngsters need to provide this readiness.

Since each child who attends kindergarten is different and has had five years of informal instruction, most of which has been individualized and of various quality, the teacher's first objective is to determine each child's strengths and weaknesses. There is no one test available which will provide kindergarten teachers with these answers, but there are skills which we can help the teacher develop and use.

First and foremost, the teacher must become a good observer. She must be able to watch children and assess their general growth mentally, emotionally, socially and physically. Secondly, she must be well versed in the growth development pattern of the average five-year-old, so she can begin to recognize those youngsters who differ from the average. Third, she must know which skills these youngsters will need if they are to engage successfully in formal learning programs in the first grade. Keeping all this in mind, the kindergarten teacher, through observation, can begin to weigh each student in light of the total group and plan programs to fit the needs of the class, either as individuals or groups. Those who seem to differ radically and are problem youngsters should be referred for testing.

More and more work is being done in the area of helping the classroom teacher to note individual differences within their students and to provide them with the best material which will give possible answers. Ilg and Ames[1] provide part of the answer to this problem. They have shown with the use of a number of different tests, that it is possible to assess a student and determine how far along he is in his general developmental pattern. Frostig[2] provides testing material for use in determining the child's motor perceptual skills and also provides training material which can be of value in improving these skills.

A study done by Fox and Powell[3] indicated that kindergarten experiences do not lead to greater achievement in the primary grades. They also go on to say that "It does mean that schools should carefully examine the purposes of their kindergarten programs and should continuously evaluate such programs in terms of those purposes." The conclusions of this study lead me to believe that kindergartens are not fulfilling a necessary role

[1]Frances L. Ilg and Louise Bates Ames. *School Readiness*. New York: Harper and Row, Publishers, 1965.
[2]Marianne Frostig and David Horne. *The Frostig Program for the Development of Visual Perception*. Chicago: Follett Publishing Company, 1964.
[3]Raymond B. Fox and Marvin Powell, "Evaluating Kindergarten Experiences," *The Reading Teacher*, 18 (November 1964), pp. 118-120.

603.

which cannot and is not assumed anywhere else in the educational system. What we hope is happening to kindergarten children is not taking place.

We must begin to re-evaluate where it is we are going and what it is we want to do. We are going to need to study the ways and means of research as concerns visual, discrimination, auditory discrimination, and language abilities in order to determine the development of these skills and know what activities we can provide for children to guide their growth in these areas. Marion Monroe[4] suggests some excellent examples of activities that can be carried out in the kindergarten as prereading experiences. To meet the prereading needs of children kindergarten teachers are going to have to learn how to make use of informal materials such as ones suggested in Monroe's book. Material for such a program must be gathered from many sources. The teacher should not rely alone on the basal reading readiness text which accompanies the basal series.

A reading readiness workbook should serve several functions. It should be used as a diagnostic tool of teaching, as a medium to provide practice in needed prereading skills, and as a means of learning to work with paper and pencil format. These texts should be the last step in a readiness program and should be the bridge from which the child steps from the informal readiness experiences to the beginning reading stage.

When planning a kindergarten program designed to meet the needs of the individuals enrolled, it is necessary to remember that such a program must be balanced so that all necessary skills are included. Provision must be made for visual discrimination, auditory discrimination, muscular development, oral language experiences, concept development, and other factors which enter into the total development of the child. We cannot train for reading readiness alone.

The kindergarten teacher of today must still be creative enough to find or make the materials she needs in order to carry out a well-rounded program. If we are to work with these children in groups, then we are going to have to have a more organized and highly structured program. This will call for the use of better equipment than we now have and the development of new materials. We need auditory discrimination materials which students can use independently after initial listening sessions with the teacher. Easy, simple games based on patterns of visual discrimination need to be developed. We need more sources of large picture material which teachers can use as a basis for experience stories, group discussion, and the development of oral language. We need more sets of material which will help youngsters note sequence of pattern. We need more games and materials which will aid in classification. We need to make better use of films and filmstrips. We need more challenging, constructive ideas which will help teachers develop specific basic skills rather than vague general needs.

Can we individualize instruction in the kindergarten? I believe it is no longer a question of can we, but how can we. No matter what the cost or effort, we must provide meaningful, rewarding readiness experiences at the kindergarten level.

---

[4]Marion Monroe and Bernice Rogers. *Foundations for Reading*. Chicago: Scott, Foresman and Company, 1964.

604.

194.

# NOTABLE READING PROGRAMS

## A. PRIMARY LEVEL

### 1. Project Head Start in Detroit

ARTHUR M. ENZMANN
Detroit Public Schools

AS A FIRST step in discussing the relationship of Project Head Start to reading programs in our schools, I feel it is necessary to define several terms. Project Head Start in Detroit is a part-time pre-kindergarten program. Because it is a pre-kindergarten rather than a pre-first grade, the goals of its educational component have much in common with those of a good nursery school. In Detroit we are also offering disadvantaged children an expanding preschool program. The preschool program differs from Head Start in that it is conducted during the school day for the regular ten-month school year and it enrolls children beginning at the age of three. Thus, children may have two full years of enriching experiences previous to their entry into kindergarten. Approximately 6,000 children participated in the Head Start summer 1965 program. Approximately 1,000 children are enrolled in the regular-year preschool.

Goals, objectives, and teaching techniques of the two programs have basic similarities in that a fundamental purpose is compensatory education and help for those children destined on the whole to be least successful in their school life. For convenience I shall use the terms Head Start and preschool interchangeably to cover both Detroit programs.

Most people are familiar with the fact that Head Start attempts to deal with the whole child—his physical, emotional, and intellectual needs. Review of the 6,000 Head Start medical examinations last summer indicated that over 1,000 children needed referral for medical treatment. Over 80 per cent of the children needed dental referral. Several hundred children needed the help of speech teachers. Almost 100 were referred for psychological help. For some children the food given to them in the Head Start program was the only balanced meal they had all day.

The love and concern showered upon our children by the professional and lay staff resulted in some dramatic changes in the emotional behavior of some children. We are convinced that many hidden changes in positive ego development were brought about by the dedicated adult personnel of the centers. These children approach school with a strengthened and broadened self concept which will in turn foster future success instead of failure.

Each of the basic components of the Head Start program warrants extended discussion. For those who are interested in an overview of our program, may I refer you to the February 1966 issue of *The Reading Teacher*. I would like to concentrate my remarks in the area of the language experiences and communication skill development offered in the program. These experiences, we believe, form the foundation upon which reading development is based.

In our work with young children, and I believe the research will support us, we have placed heavy emphasis on concrete experiences rather than on abstract learning. In dealing with concrete experiences it is necessary to bring as many senses into play as possible. This multi-sensory approach calls upon hearing, seeing, feeling, tasting, and smelling. When possible, two or more of these senses should be used simultaneously, thus affording strong reinforcement and emphasis.

A typical day's program at a preschool center should involve a balanced program of structured or directed activity and unstructured or spontaneous experiences. Achieving this balance is not an easy task. It is important to emphasize strongly that much planning must be done to insure that an educational pattern emerges



605.

from the preschool experiences offered. This time is not a babysitting situation. We are concerned that preschool experiences lead to later success in reading. Therefore, heavy emphasis must be directed toward oral language development. Individual preschools must study the needs of their children and plan to meet them. A stereotyped program determined by a central office cannot take the place of the considered professional judgment of the local preschool staff. If the goals of the program are kept in mind during the planning session, classroom activities can be structured to contribute to their attainment.

It is not my intention to present a teachers' guide of preschool activities in this brief presentation. My intent is to urge consideration of the idea that language facility for most, if not all, of our disadvantaged children will not develop and improve to the degree required for school success without the intervention of the teacher in daily programs. It is clear that visual and auditory skills are extremely important to success in reading. Therefore, it is necessary that well planned lessons which contribute to the growth of these skills be a part of the daily program.

Many kinds of material such as songs, poems, stories, etc., offer an opportunity to develop listening skills. Peg boards, matching games, and picture story sequence activities develop eye discrimination. Role playing and the use of puppets help shy children express themselves more fluently.

Effectiveness of these lessons is increased when they are offered to small groups of children rather than to the class as a whole. In Detroit, assistant teachers or aides are provided for each classroom. The class may be divided into sub-groups with the teacher and aides sharing responsibilities for the language period. If the teacher wishes to handle this important assignment personally, the aide may guide one group in unstructured activities while the teacher works with the other.

Certain basic guidelines may help the teacher as she plans these lessons. First, it is important that the activities chosen have interest value to the children. The teacher needs to be sensitive to the interests of the children in her class and also able to recognize that these interests change frequently as the children mature.

Second, care must be taken to match the development and maturity of the children to the task. If a child develops feelings of failure because he is pushed too hard to do what he is incapable of doing, he has not failed; we have failed him. Of course, the implication here is that the teacher must be knowledgeable in the area of child development generally *and* must be observant of the characteristics of her children in particular.

Third, it is necessary to know the goals to be accomplished and to maintain records of pupil activity and behavior sufficiently detailed to indicate whether they are being achieved.

Fourth, be realistic in terms of the attention span of the children. Normally, a ten to fifteen minute experience is suggested. Even this short time span may have to be adjusted in order to promote a successful lesson.

A necessary part of the development of communication skills is the provision of a wide range of experiences which stimulate and foster communication. Shared experiences provide a sound basis for natural interaction between children.

I am sure that as adults we have on occasion been placed in a position where we were expected to converse with another adult with whom we had nothing in common. When the silence became psychologically and physically unbearable, we resorted to trite comments about the weather or the furnishings in the room. On the other hand, in other circumstances and on the basis of many common interests we have had the conversation grow animated with the flow of ideas.

In the Detroit plan, children take many trips, walking and bussed, to broaden and enrich their background and to facilitate interpupil discussion. I am reminded of one class which took part in a trip to a creamery. Pre-trip activities were designed to stimulate the curiosity of the children as to what they would see, plus study and discussion of materials which would provide information to make the trip meaningful. Upon return to the classroom, the children made butter with

606.

each child participating in some way. Of course, the ultimate step was to spread their butter on some crackers and eat it. The natural spontaneous communication which resulted from this activity was encouraging to see. It could be unforced and spontaneous because the spark of a shared experience promoted it. All the children took at least one trip per week with the most popular places being the children's zoo where they could touch and feed the animals, local parks, fire stations, farms, bakeries, and walking trips to observe their neighborhood. The variety of post-trip experiences which contribute to language development in a positive way is unlimited.

It might be wise to note that many parents accompanied the classes on their trips and participated in pre- and post-trip activities. We hopefully sought to produce a ripple effect through this parent involvement which would contribute to strengthening and reinforcing the school's goals within the framework of the home. The kind of involvement of parents also gave the school an opportunity to make parents aware of what the school was trying to do in increasing the communication skills of the students. The need for this parent orientation became apparent after we heard from some parents that their children were talking too much at home and were asking too many questions. This change in behavior on the part of the child can be threatening to a relatively non-verbal parent or in a basically non-verbal home. We must make a special effort to foster understanding by parents of the relationship between growth in communication skills now and future school success. Children should not be torn apart by incompatible demands at home and school.

Let me add another caution as we set about to deliberately organize language experiences for our preschool children. It is the children who need the practice in communicating ideas and thoughts, not the teacher. We teachers suffer from a common affliction; we love the sound of our own voices. We feel we are really working and earning our money when we are talking *to* children. Let those who need the practice do the talking. Let us talk *with* children not *to* them. Let us be willing to be silent and give the children extended opportunities to talk.

Another technique which we are presently exploring in our preschool project is the use of a polaroid camera in developing opportunities for oral expression. The teacher takes pictures on trips and they are immediately available for lesson use while the experience is still fresh in the minds of the children. Many uses may be made of these pictures from simple verbal reconstructions of experience based upon a picture to rather advanced use to teach story or action sequence. Imaginative teachers can certainly find varied ways to use this tool.

Preschool programs hold great potential for giving American education of disadvantaged children an energizing shot in the arm. The road is not easy, but the rewards are great.

607.

195.

Vol. 10, 65

452,

## 5. The Kindergarten Contributes to Reading Readiness

CHARLOTTE GMEINER
Detroit, Michigan Public Schools

WHEN READING readiness is mentioned, we think of color recognition, numerals and the concepts back of them, left and righting, visual perception, eye and hand coordination, and other obvious skills and abilities needed for beginning reading.

When reading readiness is mentioned, we consider also what is meant by "reading." Is it merely the pleasurable recognition of known words and phrases, allowing one the same kind of feeling he might have when he meets an old friend on the playground? Does reading involve



a bit more than this—the uncovering of the writer's intention? If so, does reading measure the breadth and depth of the reader's experience? That is, does he as a reader, "share" something touched off by the author? Is there even more? Does the reader need to "do" something about the ideas he reads? Is there a rubber band snap to reading? Does the reader have to react? Believe? Question what is written? This makes a difference.

If reading is all of this—more than just meeting a friend, background must be richer; it will be needed in the mechanics of learning to read.

### Readiness for Reading

A readiness for anything is really an area of growth. It differs with every child, it shifts with different situations. It comes with having lived long enough to create, to play, to make friends, to feel good about one's self, to be able to listen, to be willing to talk, to have the ability to think.

Kindergarten provides time and environment for these things. The curriculum is built on the base of suiting the needs of each child at his own stage of development in a lively challenging program. This comes about in two general ways:

1. The teacher's knowledge of child growth and development.
2. The use of units of work which integrate curriculum areas.

Every teacher is knowledgeable about the need for intellectual, physical, emotional, and social maturity. Every teacher knows that if only one component of readiness is developed, it is a frozen asset.

We have come to know that the child who is curious; is imaginative; enjoys challenge; can express himself through music and art; can express his thoughts verbally; can relate ideas in sequence; memorizes rhymes, finger plays, stories; knows colors, shapes, sizes; understands classifications; has sentence sense; has extended vocabulary; is beginning to follow directions; and can anticipate events—this child may be intellectually ready for reading.

The one who manipulates tools and toys, sees well enough, hears well enough, speaks clearly, is coordinated, is healthy, and can sit still a minute,—this child may have physical maturity.

The child who respects the rights of others, is responsive to their feelings, enjoys new situations, is usually happy and self-assured, has some self-control, is receptive to new ideas, and has good feelings about himself—this child might be considered socially and emotionally ready.

As teachers we realize that these qualities are guidelines; we know there may be only minimal attainment for some children and that each child may not have developed all of these characteristics.

The evaluation of maturity, therefore, depends upon keen observations of the particular child involved. The teacher's responsibility follows this need. She continually observes, evaluates, refocuses, reteaches, provides for, motivates, is aware of individual children. This is not easily done in a large group, but kindergarten teachers spot-check, observe systematically, provide occasional tests, and even, in a few cases, write anecdotal statements.

Observations and test evaluations serve as extended teacher planning when one becomes alert to general strengths or limitations observed.

The first contribution of the kindergarten seems to be, in this area of reading readiness, a sharpened general knowledge of how children grow and a determined effort to see the developmental attainments of the children in the group.

The second strength comes within the curriculum provided. No one at the present time is surprised that there is a curriculum for kindergarten children. No one any longer believes that in kindergarten, children just play, just socialize.

The modern kindergarten is involved with the development of needed concepts, the thread of language and the placement of curiosity and creativity in the life of the child. If we believe that ideas in association are the useful ones, we know why learnings are interrelated in units or areas of interest.

Through play, games, art, music, science, and literature—with quantities of materials at hand to use, touch, create, taste, listen to, handle and to think about—children use their environment for learning. In literature there are opportunities to widen one's background, to ex-

608.

perience sympathy and empathy, to hear sentence patterns, to recall, to dramatize, to examine illustrations, to discover a love for books. On the same day, children enjoying creative experiences in art workshop have practice in color, shape, size, design, and texture; improve eye and hand coordination; and, of greatest importance, are provided a chance to relive an experience that has meaning and interest.

During the half-day in school, kindergarten children sing and respond to music with their bodies and with rhythm instruments. In enjoying these activities, there are opportunities for sharpened listening, memorization, the development of concepts, sequential thinking, critical thinking, the reproduction of musical patterns, and being creative. Games allowing role playing, attention to numerals, social living, left and right practices, and other readiness skills provide delightful learnings in an informal way. Playtime, the right of every child, provides a time for manipulation, social skills, the development of the large muscles, and stimulation of interests. Speaking threads all of these experiences, and is of course a vibrant language arts need. Language is preceded by listening and the specific techniques used with children are part of every curriculum area, in use every day.

This environment for learning uses play, games, activities, workshops, charts, experience reading, and discussion groups rather than workbooks, mimeographed sheets, and yards of paper for writing numerals from one to a million.

The informal though planned approach to reading readiness turns away from pressures to accelerate, from daily pencil pushing activities, from "silent" learning. It sponsors critical thinking and the *use* of learning, rather than the insistence on merely following directions, either verbal or pictured.

A program of informal readiness permits us to put these components together: (1) a heterogeneous group of five and six-year-olds, (2) a lively alert teacher, (3) related activities that allow success and challenge, (4) child oriented experiences in all areas, (5) enough time, and (6) delight in the company of others.

A program of informal readiness allows children the enchantment of childhood.

609.

196.

Vol. 19, 65

## 2. Reading in the Kindergarten

446.

MARJORIE L. KELLEY
Livermore, California School District

MANY PARENTS and educators are interested in kindergarten reading today but Livermore (California) started early. Four years ago Livermore School District began an experimental program of teaching reading to selected children. We felt a need, we questioned the authorities, we noted discrepancies. We felt a need because we had children in our kindergartens who could read when they came to school. We also knew that for every child that was reading, there were equal numbers who were beginning to read or who were ready to read.

We questioned the authorities when we decided to teach reading to selected children since most of the research and many of the authorities indicated that kindergarten reading was questionable at best and perhaps even undersirable. We knew we had little company nationally with whom we could exchange ideas, but we did have some supportive parents, some enthusiastic teachers, and best of all, some eager learners.

We noted discrepancies when we measured our kindergarten program against our educational objectives. As educators we have stated our belief that we should serve the individual child's social, emotional, physical, and intellectual needs. The difference between the educational goal and the educational experience left room for curricular change in development of the intellect in our five year olds. We noted discrepancies in what today's children can do compared to what they could do only a few years ago.

Because Livermore was seriously concerned about meeting individual intellectual differences in an improved and extended kindergarten program, we organized as best we could with limited funds a plan to teach selected kindergarten children to read—approximately one-third of our kindergarten enrollment learns to read. When I say teach reading, I mean a daily period of reading instruction in a basal pre-primer, primer and first reader with whatever additional supporting activities the teacher deems desirable.

Our kindergarten reading plan has been in effect now for four years and nine months and though it is not adequate in statistical design to make general or sweeping statements, we have made some interesting observations that have encouraged us to continue.

610

A brief description of what we did with our children will, I think, put the observations in better perspective.

From September through December Livermore's kindergarten program follows a standard pattern with two exceptions. First, we are committed to the idea that children must grow in the ability to be self-propelled in the carrying out of a task without the teacher.

In Livermore teachers set the expectancy level during the first week of school, that there will be some part of the kindergarten day when each child must take care of himself. First, it is the teacher's responsibility to see that the child has learned something sufficiently well so that he can be educationally occupied during a daily independent activity period. At the beginning of the year, it may be something so simple as working at the easel or making a picture with crayons.

While the bulk of the class is involved in an independent activity, the teacher meets with a small group of children each day for five or ten minutes depending on the class's maturity. This is a child study period as much as a teaching period.

During this time the teacher talks with the children, learns of their interests, the extent of their vocabularies, the kind of memories they have developed, and the quality and quantity of number concepts they possess.

During each week all children have an opportunity to be with the teacher when only four others are with her. As the semester goes along and as the children learn other independent activities, the small group conference time with the teacher is extended. By January, the teacher is able to work with a group for half an hour.

Second, we have a strong program of auditory training. This we believe forms a substantial base for the work that will come later when sounds are related to symbols.

It seems to be an occupational tradition to add curricular offerings but never take any out. In Livermore we faced the problem of "if reading goes in in January, what goes out?"

It was our considered judgment that by Christmas vacation the children had had their little bellies full of milk and that they all could count to thirty straws. Nutrition in our district is not a problem. One part of the program that was never initiated was the lying-on-the-floor rest period. When you remove both milk and rest from the kindergarten day you have added at least thirty minutes, maybe more, in which some other activities such as reading may take place.

By January a teacher is very familiar with the abilities of the children in the class; however, to satisfy herself that only those children who are ready are taught reading, she uses some additional procedures. A mental maturity test, a readiness test, and a letter knowledge test, a parent interview and the child's interest in learning to read form a backdrop of information on which to select the readers. No child reads who doesn't want to, no child is kept out who wants to be in the reading group!

For three years we taught reading and kept records of the reading progress of those children who had had kindergarten reading and those children who had started reading in the first grade.

We wanted to test in a preliminary fashion these hypotheses:

1. Selected kindergarten children who are taught to read in the kindergarten will have significantly higher skills in reading than children of equal IQ's who are not taught to read.
2. Selected kindergarten children who are taught to read in the kindergarten will have significantly higher skills in social science concepts.
3. Selected kindergarten children who are taught to read in the kindergarten will have significantly better attitudes toward school and learning.

We compiled our data and gave them the best statistical treatment possible considering the fact that the data were collected in absence of a research design.

Children fell into two natural groups: (1) those who had kindergarten reading in Livermore, and (2) those who had reading readiness in Livermore. For purposes of analysis the children were matched by IQ.

A summary of the second graders shows that they were significantly advanced in

611.

reading skills, social science skills, and that their attitudes toward reading and school were superior to the matched IQ group who did not learn to read in kindergarten.

These results were sufficiently encouraging that a more rigorous experimental design was needed if we wished to make any generalizations about kindergarten reading.

Livermore School District applied and received a grant from the Rosenberg Foundation to study kindergarten reading. We were fortunate to have Bentley Edwards and the late David Russell, both of the University of California, and Melville J. Homfeld of Livermore, as special advisers. The research director was Martin Chen and this author the project director.

This design called for an experimental and a control group. Two hundred-twenty children divided between two schools were given either the California Mental Maturity Test or the Lee-Clark Readiness Test. From these tests a mean was taken and children were categorized as a high IQ group or a low IQ group depending on the position of the score above or below the mean. Out of each group a sample was then assigned randomly to the experimental group for reading instruction or to the control group for readiness instruction. Both the reading and the readiness groups received four months of instruction in either reading or readiness. For this experiment we frustrated some bright children in the control group who wished to read and some others in the experimental group who did not wish to read. While it was nearly possible to keep the lid on the control group, it was virtually impossible to teach some children in the experimental group to read.

In May of the kindergarten school year all children were tested on the California Reading Test on three attitude tests, two of which are teacher observation scales and the other a pupil reporting scale.

An analysis of the results indicates that those children who were in the experimental group surpassed those of the control group in reading skills. Attitudes toward reading were found to be a function of intelligence or readiness; those in the high IQ control and experimental groups surpassed both the low IQ control and experimental groups. The same was true on attitudes toward school as measured by a teacher rating scale; however, when attitudes were measured on a self-reporting inventory, it was found that the control group had more favorable attitudes toward school.

At present we are retesting both the experimental and control groups on the reading skills and attitudes toward school and reading to ascertain the trends in skills and attitudes that are developing.

While we are encouraged and enthusiastic about kindergarten reading in Livermore, we have to reserve our judgment about the efficacy of early instruction in reading until we have final results from our longitudinal study and others being done elsewhere.

612.

197.

# PART IV

## Significant Issues in Reading

### 1. Reading and Five-Year-Old Children

#### *a. Research on Instructional Design for First Steps in Reading*

A. R. MacKinnon

RECENT research findings in psychology, neurology, linguistics, phonetics, and communication, point out rather forcibly that major revisions are necessary in our thinking about the nature of instructional design.

In science, mathematics, and second language learning there has been an increasing recognition that certain basic principles of the studies can be learned by children at a much earlier age than heretofore believed possible, provided that the studies are divorced from abstract theory and are studied through materials that the child can handle himself. Again, the new applications of learning theory have resulted in what is called "programmed learning" and the advent of the teaching machine.

#### The Application of New Learning Theory

The reading material employed in the study to be reported here was produced by I. A. Richards and C. M. Gibson, Language Research Incorporated, Harvard University. The material was published in pocket book form in 1957 and a full reading program has been developed now with beginning texts, filmstrips, workbooks, etc.[1]

Increasing evidence suggests that the letters, the words, and the sentences through which children are presently being asked to learn to read may not touch off—or release—the modes of dealing with symbols already possessed by the learners.[2,3] Further, they may be such as to distract the child's limited energies from the task, or fail to stimulate him towards further development.

Richards and Gibson have attempted to provide in the design of their material, sentences that have a central, general, clear, highly familiar meaning for the beginner. The meanings are such that they might be fully examinable and be illustrated by a picture or other ways.

Ames and Learned's studies of children's speech have shown that before the child begins the naming of objects in space, he spends considerable time in looking at and pointing to the objects.[4] In the Richards-Gibson material the beginning reader is invited to see how printed symbols can point and name persons and objects. Locating statements, for example: "He is here," are used to say where someone or something is. Locations in turn become more exact by the use of such words as "in" and "on" and names are given qualifications by the use of such words as "his" or "these."

Stick figure drawings at the end of each sentence or beside a sequence of sentences are designed to act as a kind of nonverbal abstraction to explain what the sentence is saying. In contrast to the colored and elaborate illustrations making up modern reading texts, the pictures that appear in the Richards and Gibson material include only the basic structure of the objects they illustrate. In such simplicity there is a close parallel with the way children, in their own draw-

[1] C. M. Gibson and I. A. Richards, *First Steps in Reading English*, Cardinal Edition, New York, Pocket Books Inc., 1957.

[2] A. I. Gates, "The Necessary Mental Age for Beginning Reading," *Elementary School Journal* 37: 497-508.

[3] A. Kelly, "A Study of Eight Primary Readers," *British Journal of Educational Psychology* 24: 49-50.

[4] L. B. Ames and J. Learned, "The Development of Verbalized Space in the Young Child," *Journal of Genetic Psychology* 68:97-125.



613.

ings, tend to pick out from a complex structure the main outlines in order to make their representation.[5]

Studies of word recognition have shown that certain letter forms which are more or less symmetrical or which are more or less complete forms or "gestalts" of each other can cause difficulties in perception.[6]

The experimental procedure was aimed at providing maximum opportunities for the individuals to reveal their thinking as they attempted to comprehend the meanings of the printed symbols on the presentation sheets.

Each child in all classrooms was tested individually at the beginning and the end of the experiment with the Gates Reading Readiness Test and Tests R6 and R7 of Schonell's Diagnostic Test in Reading. Each child in the eight classrooms also made a drawing of his classroom both before and after the experiment and his descriptions of his drawings were recorded verbatim. In addition, the children who worked with the Richards-Gibson material were tested at the end of the experiment on specially constructed tests which were aimed at assessing the pupils' growth in comprehension and perceptual discrimination.

In a second investigation, the children studied had just started school and were not engaged yet in formal reading instruction. The children were selected from three classrooms in three different schools. The groups were directed by three Infant Mistresses, who recorded in detail what happened during the daily sessions. They also followed the discipline required of the observer in Investigation One.

**Results**

Complete details of the outcomes of the study have been published elsewhere.[7] Perhaps the most significant feature of the results was the minute-by-minute revelation of children's thinking during the ten meetings. Richards and Gibson control the letter intake in their reading material by picking only one letter from those that invite confusion, and postpone the introduction of others likely to be confused. A careful limitation of the letters still provides for a considerable supply of words for use in short sentences.

As meaning shifts from sentence to sentence differences are deliberately displayed. Changes of single words in a simple construction and letter by letter variation between words are aimed at bringing out the manipulatory possibilities of these elements.

**Design of the Research**

The research, in which the Richards-Gibson material was employed as a controlled exploratory instrument, was undertaken in Edinburgh, Scotland. Children in that country are instructed in reading from their entrance into school at five years of age. In the study, three groups were selected from each of eight classrooms and were matched on a wide range of criteria. I.Q.'s were distributed normally and socio-economic levels similar to a normal population were present. The three groups for each classroom were studied under the following conditions:

*Experimental Group*—Six boys and six girls who took turns in a group reading aloud the Richards-Gibson material;

*Control Group 1*—Six boys and six girls who worked by themselves with the Richards-Gibson material;

*Control Group 2*—Six boys and six girls who took turns in a group at reading aloud from material which accorded closely with instructional material in daily use in their classroom.

In summary, the children's thinking as revealed on the Richards-Gibson material can best be described as a development of strategies for handling the tasks of written language. In the early stages, familiar patterns were fixed on in an effort to reduce the possibilities of error. As these patterns shifted, there was an increased awareness that the patterns had to be transformed in some way. The children reacted by searching the illustration for cues, by substituting known words for unknown words, by omitting parts of sentences, by inserting familiar patterns and by even separating sentences into parts. These early modes were soon recog-

[5] R. Arnheim, *Art and Visual Perception*. London: Faber and Faber, 1956, Chapter IV.
[6] W. S. Gray, *The Teaching of Reading and Writing*. London: UNESCO and Evans Bros., 1956, p. 44.
[7] A. R. MacKinnon, *How Do Children Learn to Read?* Toronto: Copp Clark, 1959, pp. 86-258.

614.

nized as inadequate because of the incongruity between what was written and what was said. The children then tackled one problem at a time and once they had achieved some measure of success, an increasing transformation was made of the previous knowledge in order to accommodate the new tasks. Each step was evaluated by the learners within increasingly widening contexts of comparison. This often took the form of rereading spontaneously and of pointing to particular parts of the sentences.

During the early meetings of children in the group, irrelevant suggestions from listeners waiting their turn encumbered the child in his efforts to read aloud. During the following meetings, there was increasing evidence that children could learn from one another and aid each other in their learning. The emergence of groups that could function in this way was intrinsically related to the nature of a task which required the children to make a study of language together.

Once some of the members knew, in a measure, what they were doing in reading, comments from the group forced the readers to examine the modes they used in dealing with printed symbols. The majority of time spent by any child in the group was taken up with silent reading. This provided for extensive back translation and also for reading on ahead. The group also provided an extensive range for each learner to evaluate the progress of his learning. Further, the procedure of taking turns and the design of the material provided that the interval between performance and reward was minimal. This condition has been demonstrated experimentally as critical for maximum reinforcement.

The examination of pupils' learning through conventional reading material indicated that although numerous controls had been put on the materials, there were extensive opportunities for mistake and confusion. The material appeared to put an unnecessary load on the pupils' memory and the invitation to vicarious enjoyment through the elaborately colored illustrations frequently distracted the pupils from the task of reading the text. Again an extensive documentation has been made of this facet of the study in another publication.[8] Since only one type of conventional material was employed in the study, it is perhaps unfair to detail all the problems which the children encountered. Certainly, further intensive investigation of pupils' thinking with this type of material is warranted.

### Comparisons of Groups

The children who worked as a group with the Richards-Gibson material were found to score significantly higher than those pupils who worked individually with the same material. (This finding was confirmed in Investigation Two where Infant Mistresses directed the children.) Those pupils who worked as a group with conventional material did not score significantly better than children who did not have additional attention.

The children who worked with the Richards-Gibson material showed a general superiority, not so much in scores obtained but in the modes of thinking which the children developed to handle the complex tasks of language learning. They showed an increasing expertness in perceiving how the language which they had learned could be *utilized* to handle new problems. They also indicated a superiority in perceptual discrimination of parts of words and a superiority in perceiving how words work together in sentences.

On the draw-a-classroom test the children who worked with the Richards-Gibson material indicated that they transferred their proficiency in handling written language to the tasks of ordering their speech and their own writing. This was revealed by superior scores in the following areas:

1. oral use of complex sentence patterns to handle ideas;
2. spontaneous writing;
3. correct spelling of words;
4. use of detail in making drawings of things;
5. use of detail in making drawings of persons.

### Implications

The outcomes of the research suggest that much can be done right at the early stage to encourage perceptual development in children. The intensive study of an essential core of letters of the alphabet helped the children to develop effective modes of tackling perceptual problems. A scientific design of material for learning to read does succeed in helping children to a greater language power, not only in reading but also in speaking and writing. The results also suggest an improvement in social growth.

The research does not mean that the material developed by Richards and Gibson is now developed as a perfect instrument for learning. Many more studies are required through which more of the new learning theory can be incorporated into instructional design. Programs need to be evaluated in different school settings somewhat in line with the experiment at the Bethlehem Central Schools, Delmar, New York.[9]

There would seem to be unlimited opportunities for carrying out research on instructional design in the coming years. In short, we have only begun the task of understanding how learning to read comes about and of understanding how learning to read can be brought about most effectively. Within such a context it would be perilous to assume that definitive statements can be made at this stage about the best age for beginning reading instruction.

[8] A. R. MacKinnon, *op. cit.*, pp. 166-177.

198.

Vol. 10, 1965

# SEQUENCE II EXPERIENCES NEEDED FOR COMPREHENDING READING

## A. PRIMARY LEVEL

### 1. Necessary Preschool Experiences for Comprehending Reading

MARION MONROE
Seal Beach, California

THERE is perhaps no one area in American education that has received more popular attention than that of how to teach Johnny to read. If only the teacher would use this or that technique, Johnny would have no difficulty.

Every child that comes to school, however, brings with him his own unique experiences which affect his ability to learn to read for good or for ill. Each new learning experience is modified by the experiences of the past.

The ease with which a child learns to read depends upon four variables, (1) the child, whose abilities and experiences are uniquely his, (2) the teacher who also varies in her abilities, training, experience and understanding of children, (3) the content of the material the child is asked to read, and (4) the group in which he is placed to learn.

All these factors and many more make learning to read a complicated procedure. It is not surprising that every year many children encounter difficulties in learning to read. In this paper, I will consider chiefly the *preschool experiences* which get a child off to a good start in learning to read and those which may serve to retard the child's beginning efforts.

A child's preschool experiences with books set the stage for motivating learning to read. A child who has had pleasurable experiences in hearing stories read aloud to him has a preview of the rewards of reading. He looks forward to reading by himself, to take his place in a cultured family group. He knows that printed words stand for language. The print in books cues the oral reader as to what to say.

A child who lacks these happy experiences with books has little desire to read. He may reject reading from the start, as something that does not appeal to him, and for which he sees no use.

Reading is one of the language arts. The child obtains ideas from printed language in much the same way that he understands spoken language. If a child has heard and used language patterns like those in books, he has a basis for comprehending the book. As one child said, "Reading is just talk wrote down." Reading, however, is more than just de-coding a set of printed symbols into spoken words and recalling what the words mean. The printed text in a primer is formulated in *standard speech,* while the child's use of language may be anything but standard. The child who comprehends "Tom gotta dog" does not necessarily comprehend "Tom has a dog." The child who says "Whatcha gonna do?" may not immediately understand the printed words, "What are you going to do?" Dialects, foreign language, substandard English, and simply the fact that we usually run the sounds of spoken words together in the pattern of conversational speech, may make the printed language in a book seem as strange and devoid of meaning to some children as if they were mastering an almost new language.

A scale is presented here for evaluating a child's language ability in interpreting pictures. Select pictures in which two or more characters are engaged in some interesting activity. Ask the pupil, "What is this picture about?" Record his verbal response and classify its level on these steps.

Step 1. The child merely shrugs his shoulders and does not reply. He may venture to name some



616.

of the objects in the picture, i.e., "dog," "boy," "It's a kitten."

Step 2. The child describes what the characters are doing, i.e., "The dog's jumping up," "The baby's eating."

Step 3. The child expresses a relationship between the characters or objects. "The boy's playing ball with the dog."

Step 4. The child sees the picture as one part of a narrative. He gives relationships of time, place, cause-effect. "The boys are building a bird house. They will put it up in a tree so a bird can built a nest in it."

Step 5. The child reacts to the mood of the picture, perceives the emotional reactions of the characters, and draws a conclusion or evaluates the actions, "This picture's about camping. It's a dark night and the children are kind of scared. They're singing songs around a campfire. Wild animals won't come near a fire."

Children who have not reached *Step 3* or *Step 4* on this scale scarcely have developed sufficient language ability to interpret a picture in a primer and react to the narrative text that accompanies the picture. Fortunately many verbal skills can be developed in pre-reading activities if the child is of average mental ability.

The non-English speaking children will need to learn the names of familiar objects in the environment and in the pictures. By asking, "What is the boy doing?" "Where is he?" "Why is he painting the wagon?" "What will he do next?" "How does he feel?" you can encourage the growth of vocabulary and sentence usage.

Not every child who uses language well is ready to read, however. A printed word is a complex organization of small forms and shapes called letters. Some children have never had the visual experience of comparing and examining the small details of objects.

In order to discuss and compare visual qualities the children need to develop a *vocabulary of descriptive terms,* large, small, round, square, pointed, straight, curved, to the right, to the left, above, below, upside down and so on. Armed with a descriptive vocabulary, the child is prepared to compare and describe printed words and letters.

Accurate description indicates accurate perception and relates visual and language development.

The child in reading moves his eyes from left to right. Children who have had the "funnies" in newspapers read to them as they follow the row of pictures across and down the page may have already established the habit of left-to-right progression. To discover children who have not established the conventional habit of looking from the left toward the right, you may make a card containing several rows of pictures. Ask a child to name the pictures, and observe the order in which he does so.

Early preschool experiences with rhymes and jingles help to prepare children for listening to the sequence of sounds in words, to find words that begin or end with similar sounds. Children whose preschool lives have been barren of these joyful experiences in listening need to be provided with such experiences before beginning to learn to read.

Learning to read is a complex process which has its beginnings long before the child actually associates printed symbols with their language meanings. So-called reading readiness activities are actually the early basic steps toward reading that many children go through in cultured homes where they are exposed to the reading activities of parents and families. If a child has missed these experiences at home it is only a matter of wisdom to provide him with the most essential of them in his early days at school. "Well begun is half done" is an adage that bears fruit in the process of learning to read.

Pre-reading activities that sharpen a child's perceptive abilities may be likened to giving him foreknowledge of the tools of his trade. An artist needs to know how to use his tools. But good tools alone do not make an artist. He must have within himself the picture he wants to paint. So it is with the potential reader. He must have within himself the need and desire to read because he knows what the rewards will be.

617.

199.

Vol.7, 62

# 7. The Effects of Letter-Name Knowledge on Learning to Read a Word List in Kindergarten Children

SIEGMAR MUEHL

Research indicates that kindergarten children learn to discriminate words and associate word meanings on the basis of details associated with the stimulus configuration of the word (Gates and Boeker, 1923; Meek, 1925; Muehl, 1960). Children's descriptions of how they recognize a word, further indicate that they learn to associate familiar verbal labels with these details; e.g., the "dot" over the letter *i*, the "cross" on the letter *t*.

If this verbal labeling process is the basis for mediating word discrimination and meaning association, providing children with a consistent set of labels in the form of letter names should facilitate these processes, rather than leaving the child to evolve his own set of labels. Support for this assumption is found in Durrell's (1958) finding that knowledge of letter names was the best predictor of subsequent word recognition and reading performance in first grade children.

Related psychological research with children, however, has not consistently supported this assumption. When children were taught distinctive verbal labels to similar visual stimuli in pretraining, learning motor responses to the same stimuli in a transfer task was facilitated (Cantor, 1955; Norcross and Spiker, 1957). Figure 1, Table 1, see p. 131, illustates this learning situation. Theory suggests that the verbal labels learned in pretraining provide cues that make the original stimuli more distinctive and mediate acquisition of the second task responses (Miller, 1948). However, when children were required to learn verbal labels in the transfer task, interference resulted (Spiker, 1960).



Figure 2, see p. 131, illustrates this situation. Presumably the verbal labels learned in pretraining competed with the acquision of the new verbal response.

A comparable paradigm for learning letter names and using these names in word recognition is illustrated in Figure 1, Table 2, see p. 131. Note that the transfer task here requires relating a different set of verbal labels with stimuli similar to, but not identical with, the letters themselves, *i.e.,* words containing the letters. Theoretically, two results are predictable from letter-name learning. The letter name would provide a cue to mediate as illustrated in Figure 2, Table 2, or interfere or compete as in Figure 3, p. 131.

The purpose of this study was to assess these alternative possibilities.

## Procedures

### *Pretraining*

Eighty-seven kindergarten children (mean age 67.1 months) were divided into groups by the type of letter-name pretraining each group received. These pretraining groups are shown in Table 3, p. 131, left-hand side. The results in Replication I indicated that letter names of f, m, and g were more difficult to learn than j, u, and d. To avoid bias on the transfer task due to this difference in difficulty, Replication 2 was run as indicated. The procedure for presenting the letters is illustrated in Table 4, p. 132. Each pair was mounted on a card. Subjects learning to name seven of nine pairs correctly were assigned to Criterion groups. Subjects not reaching this criterion in seven runs through the pack of cards were assigned to Non-Criterion groups.

### *Transfer or Reading Task*

Table 3, p. 131, the right-hand side, shows the transfer or word recognition task. In each replication the letter stimuli for discriminating among the non-sense words were the same letters used in relevant letter-name pretraining. The nonsense words were paired with pictures of objects for paired-associate presentation. Table 5, p. 132, shows the procedure. First the word at the left was presented with the picture covered. The children had four seconds to "read" the word by naming the picture. Second, the word and picture appeared together for three seconds. Third, the card opening was completely covered for two seconds. After appropriate familiarization instructions, each subject was given a total of 48 paired-associate presentations, 16 for each word-picture pair. When the subject named a picture correctly, he moved a bead across a counting frame. For each presentation, the child's response in the four second interval was scored as correct, as an error, or an omission, i.e., not saying anything at all.

## Results

### *Pretraining*

Table 6, p. 132, shows pretraining results for the combined replications. There were no reliable performance differences between the Relevant and Irrelevant groups.

### *Transfer Task*

Since there were no reliable performance differences between the two replications on the word recognition task, the results have been combined for presentation in Table 7, p. 132. Non-Criterion pretraining groups made fewer correct responses and more omissions than the Criterion groups. However, there were no interactions in transfer task performance between these groups. Thus, for simplicity, the results for the Criterion and Non-Criterion groups have been combined in Table 7.

Looking first at correct responses, there was a significant difference in performance variability. The restricted variability of the Relevant groups was reflected in the range of higher scores. Only one Relevant subject scored 30 correct responses; seven Irrelevant subjects scored 30 or above. Although the Irrelevant groups made more correct responses, the difference between the groups was not significant. Analysis of omissions showed that the Irrelevant groups made significantly fewer omissions. There was no difference between the groups in errors.

## Discussion

The results of this study show that learning letter names interfered with word recognition in kindergarten-age children.

Observation of the children's perform-

618.

ance on the transfer task indicated this interference effect to be most directly reflected in the frequency of omissions in the Relevant group. A few children in the Relevant groups responded, overtly, with the letter names, rather than the picture names when the words were presented. This typically occurred early in learning when the majority of the children in the Relevant groups were responding with omissions. Presumably most children quickly learned that the letter-name response was inappropriate to the words. However, since the letter name was the dominant response to the critical stimulus element in the words, this response had to be displaced. The omissions resulted, therefore, from a competitive blocking (Gibson, 1941) of the picture names by the more dominant letter-name responses (see Table 2, Figure 3, p. 131).

These results require some interpretation to fit, first, the assumption that children do use verbal labels of their own devising to mediate word recognition, and second, Durrell's (1958) finding that letter-name knowledge does predict reading performance.

1. Children's verbal responses to adults' questions about how they recognize a word may bear no relation to the identifying response children actually use when presented with the words themselves. This identifying response may be primarily non-verbal; *i.e.,* learning where to look (Kurtz, 1955). Thus, in the present study all subjects had to learn where to look in the transfer task. In addition, the Relevant subjects had to unlearn the letter-name response elicited by seeing the relevant letter.

2. Kindergarten-age children may not have the language skills necessary to utilize the information provided them by the letter-name labels. This explanation is supported by the exceptional performance of one child in the Relevant group in the preliminary testing. During the first few presentations of the reading task, this child consistently responded with the letter name. Beginning with the seventh presentation he began to mediate the letter response and picture name by using the words "goes with"; e.g., "f goes with boat." This child rapidly adopted this language mediating procedure with each word presented and quickly obtained a perfect score. No other child, in over 100 tested, overtly used this method of learning the word-name association. Children a year older may well be able to provide this language mediation (Kendler and Kendler, 1962) which could in part account for the results reported by Durrell (1958) for his first graders.

3. Finally, it is possible that the relation between letter-name knowledge and reading performance reported by Durrell resulted from the sound similarity between most letter names and their phonic value in word pronunciation. In the present study there was no relation between the sounds of the letter names and the sounds in the picture-name words (see Table 3). Sound similarity may provide a meaningful mediational link for younger children (Riess, 1946).

In conclusion, further research is needed to assess the function of language processes and sound elements in mediating word recognition in beginning readers.

## REFERENCES

Cantor, G. N., "The Effects of Three Types of Pretraining on Discrimination Learning in Preschool Children," *J. Exp. Psychol.*, 1955, 49, pp. 339-342.

Durrell, D. D. (Ed.), "Success in First Grade Reading," *J. Educ.* (Boston), 1958, 140, pp. 1-48.

Gates, A. I., and Boeker, Eloise, "A Study of Initial Stages in Reading by Preschool Children." *Teachers Coll. Rec.*, 1923, 24, pp. 469-488.

Gibson, Eleanor J., "Retroactive Inhibition as a Function of Degree of Generalization Between Tasks," *J. Exp. Psychol.*, 1941, 28, pp. 93-115.

Kendler, H. H., and Kendler, T. S., "Vertical and Horizontal Processes in Problem Solving," *Psychol. Rev.*, 1962, 69, pp. 1-16.

Kurtz, K. H., "Discrimination of Complex Stimuli: The Relationship of Training and Test Stimuli in the Transfer of Discrimination," *J. Exp. Psychol.*, 1955, 50, pp. 283-292.

Meek, Lois H., "A Study of Learning and Retention in Young Children, *Teachers Coll. Contrib. to Educ.*, 1925, No. 164.

Muehl, S., "The Effects of Visual Discrimination Pretraining on Learning to Read a Vocabulary List in Kindergarten Children," *J. Educ. Psychol.*, 1960, 51, pp. 217-221.

Norcross, Kathryn J., and Spiker, C. C., "The Effects of Type of Stimulus Pretraining on Discrimination Performance in Preschool Children," *Child Develpmt.*, 1957, 28, pp. 79-84.

619.

Table 1

Fig. 1

Fig. 2

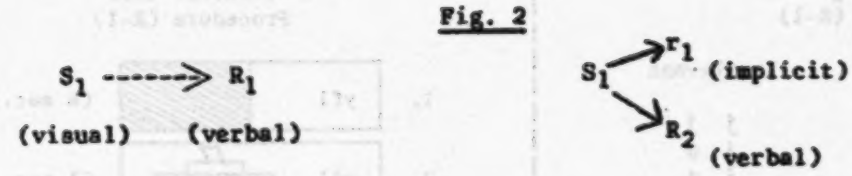



Table 2

Fig. 1

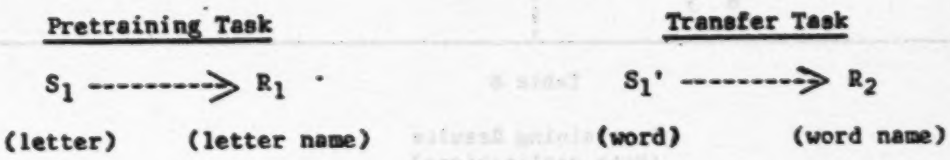



Fig. 2

Fig. 3

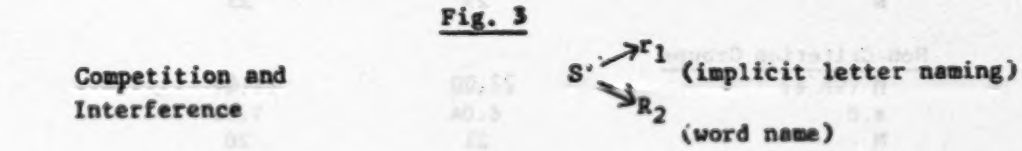



Table 3

**Pretraining: Letter naming** **Transfer Task: Word recognition**

**Replication 1**

| | | (pictures) |
|---|---|---|
| Relevant | f, m, g | yfl - boat |
| | | yml - sled |
| Irrelevant | j, u, d | ygl - cake |

**Replication 2**

| | | (pictures) |
|---|---|---|
| Relevant | j, u, d | yjl - sled |
| | | yul - boat |
| Irrelevant | f, m, g | ydl - cake |

**Table 4**

**Pretraining Task Procedure (R-1)**

| Relevant | Irrelevant |
|---|---|
| f f | j j |
| f m | j u |
| f g | j d |
| m m | u u |
| m f | u j |
| m g | u d |
| g g | d d |
| g f | d u |
| g m | d j |

**Table 5**

**Transfer Task Procedure (R-1)**

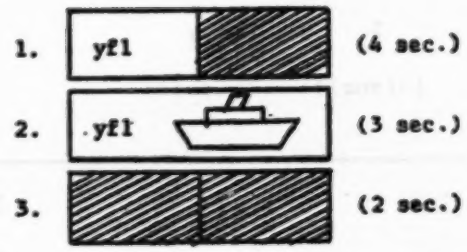



**Table 6**

**Pretraining Results (Both replications)**

| | Relevant | Irrelevant |
|---|---|---|
| **Criterion Groups** | | |
| M (trials) | 4.00 | 4.35 |
| s.d. | 1.69 | 1.97 |
| N | 23 | 23 |
| **Non-Criterion Groups** | | |
| M (CR's) | 22.00 | 21.40 |
| s.d. | 6.04 | 7.36 |
| N | 21 | 20 |

**Table 7**

**Transfer Task Results (Both Replications)**

| Pretraining Groups | N | | CR's | Omissions |
|---|---|---|---|---|
| Combined Relevant (C+N-C) | 44 | M | 18.48 | 9.52 |
| | | s.d. | 5.49 | 5.95 |
| Combined Irrelevant (C+N-C) | 43 | M | 21.02 | 6.77 |
| | | s.d. | 7.99 | 5.95 |

133.

Riess, B. F., "Genetic Changes in Semantic Conditioning," *J. Exp. Psychol.*, 1946, 36, pp. 143-152.
Spiker, C. C., "Associative Transfer in Verbal Paired-Associate Learning," *Child Develpmt.*, 1960, 31, pp. 71-87.

621.

200.

Vol. 10, 65



# 12. Reading Readiness and Reading Achievement

LEONARD M. ALSHAN
City University of New York

THIS study[1] had as its major purposes: (1) the development of a minimal set of simple diagnostic measures that might be used by first-grade teachers for predicting success in beginning reading, and (2) a study of the relationships among the predictive measures with first-grade reading achievement.

The predictive measures selected for study were: visual discrimination, visual-motor coordination, oral language proficiency, auditory discrimination, and auditory blending. Experimental instruments were constructed for the first three of the above readiness components. Two published tests were used for the last two—the Wepman Test of Auditory Discrimination (1958) and the Roswell-Chall Auditory Blending Test (1963).

The above tests were administered in the middle of the first grade. Before the tests were administered, teachers rated pupils (on a five-point scale) on variables known to be predictive of reading success—gross motor coordination, fine motor coordination, ability to understand English, ability to speak English, ability to pay attention, and general intelligence. Teachers also rated pupils on three aspects of reading ability—word recognition, phonics, and comprehension.

At the end of the first grade, the Gates Primary Word Recognition Test and an experimental test of knowledge of letter names and sounds (consonants and consonant combinations) were administered.

## Population

The population consisted of seven first-grade classes (159 children) in a public school affiliated with The City College. The school is located in a relatively impoverished area of the city. Most of the children are Negro; a smaller percentage are of Puerto Rican origin.

The present analysis is based on 82 subjects for whom complete data on all 28 measures were available. A comparison of the means and standard deviations for this group of 82 with all pupils on whom data were available indicated that this group in no way differed significantly from the original group and might be taken as representative of it.

## Statistical Procedures

All tests and rating scales were intercorrelated, and a principal components analysis followed by varimax rotations was carried out in order to determine what factors were being measured and which of these were most predictive of end of first grade achievement as defined by the Gates Primary Word Recognition Test. All computations were carried out on the IBM 7090 computer.

## Results

Of the 378 different correlations, 271 were statistically significant at the 5 per cent level and 219 of these were significant at the 1 per cent level. Only 19 significant correlations, including 4 significant at the 1 per cent level would have been expected by chance alone. The large number of observed coefficients which were statistically significant seemed to justify the factor analysis of the correlation matrix.

After obtaining the principal axis loadings, seven separate varimax rotations were carried out involving respectively two, three, four, five, six, and seven factors at a time. The rotation that seemed to make the most psychological sense was the one involving five factors. These factors are:

*Factor 1,* which accounts for 30 per cent of the common variance, is defined by the teachers' ratings of the reading and language ability of pupils. Teachers' ratings of pupil's general intelligence, fine motor coordination, and ability to pay attention also have high loadings on this factor.

*Factor 2,* which accounts for 23 per cent of the common variance, is rather clearly defined in terms of the three subtests and total score of the Roswell-Chall Auditory Blending Test. In addition, the consonant combinations subtest of the experimental test of letter names and sounds also has a substantial loading. The Gates

[1]The study was carried out together with Jeanne Chall, Florence G. Roswell, and Mildred Bloomfield, also of The City College. The author wishes to acknowledge the assistance of Anthony Liotti.

622.

Word Recognition Test has its highest loading on this factor.

*Factor 3,* which accounts for 18 per cent of the common variance, is completely defined in terms of the experimental oral language test. The Gates Word Recognition Test has its lowest loading on this factor.

*Factor 4,* which accounts for 17 per cent of the common variance is defined by the letter names subtest, the initial consonants subtest, and the total score on the experimental test of letter names and sounds.

*Factor 5,* which accounts for 12 per cent of the common variance, is defined in terms of visual discrimination, primarily of words.

The factors may be ranked as follows—from highest to lowest—as predictors of first-grade reading as measured by the Gates Primary Word Recognition Test:

Factor 2—auditory blending and consonant combinations

Factor 1—teachers' ratings (excluding gross motor coordination)

Factor 5—visual discrimination

Factor 4—letter names and consonant sounds

Factor 3—oral language proficiency

## Discussion

1. The most significant finding of the factor analysis is the importance of the auditory blending component as a predictor of first grade reading achievement. It confirms previous findings of Chall, Roswell and Blumenthal[2] and also substantiates the observations and findings of Orton,[3] Monroe,[4] and Vernon[5] that a deficiency in the ability to synthesize sounds is one of the distinguishing characteristics of children with reading disability.

2. The fact that all the teachers' ratings, with the exception of gross motor coordination, load so strongly on one factor would seem to indicate that the teachers rated the children in a global fashion. Although the predictive value of the teachers' ratings is low, it is still the second best predictor of end of year reading achievement.

3. The low predictive value of the visual discrimination measures may very well be a function of the late administration and ease of the test (most children achieved near perfect scores). But perhaps it is legitimate to raise the question as to whether visual discrimination of words and most letters has not perhaps been overrated. It seems to be easily acquired with practice and then does not seem to have too great a discrimination value once it is learned.

4. The lowest predictive value stemmed from the oral language factor, and would therefore raise questions regarding the recent concern about the importance of oral language for success in beginning reading of all children, and particularly for the culturally disadvantaged. It should be noted, however, that Strickland[6] and Loban[7] also failed to find a significant relationship between oral language and reading achievement at the primary grades, although they both reported significant correlations at the intermediate grades. It may very well be that language, while important for success in reading, does not begin to function until the later grades when the reading matter takes on a higher order of conceptual and structural complexity.

[2]Jeanne Chall, Florence G. Roswell, and Susan Hahn Blumenthal, "Auditory Blending Ability: A Factor in Success in Beginning Reading, *The Reading Teacher,* 17 (November, 1963), pp. 114-118.

[3]Samuel Orton. *Reading, Writing, and Speech Problems in Children.* New York; Norton, 1937

[4]Marion Monroe. *Children Who Cannot Read.* Chicago: University of Chicago Press, 1932.

[5]M. D. Vernon. *Backwardness in Reading.* Cambridge University Press, 1957.

[6]Ruth G. Strickland. "The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children." *Bulletin of the School of Education,* Indiana University, Vol. 38, No. 4, July 1962.

[7]Walter Loban. *The Language of Elementary School Children.* National Council of Teachers of English, Research Report No. 1, 1963.

623.

Q01.



prereading tasks which warranted further investigation. Gavel *(4)* and McHugh *(6)*, for example, demonstrated the value of recognition of letters named as a predictor of beginning reading achievement. In a frequently cited investigation, Goins *(5)* discovered that a child's ability to complete a mutilated design, when a completed design was in view, had a relatively high correlation with early reading success. A study of seven prereading visual discrimination tasks conducted by Barrett *(1)* revealed that letter and number naming, word matching, and design completion, provided the most valuable information with respect to eventual reading achievement. Dykstra *(3)*, on the other hand, found that of the auditory discrimination abilities he measured, discrimination of beginning sounds and vowel sounds in words correlated best with first-grade reading achievement. Finally, an investigation by Clymer *(2)* demonstrated the predictive possibilities of a copy-a-sentence task, when it was scored in terms of the number of words discernible in the child's copy.

These six findings, then, provided the impetus for the present investigation by yielding information upon which to base the development of a battery of prereading tasks. Such a battery, it was thought, would permit a cross validation of earlier results and an evaluation of the predictive relationship between a relatively unique, but worthwhile combination of prereading tasks and early reading achievement.

### Purposes of the Study

In specific terms, the purposes of the study were: (1) to determine the correlation between first-grade reading achievement and each of seven prereading tasks; and (2) to find the predictive relationship between success on seven prereading tasks in combination and first-grade reading achievement.

### Measuring Instruments, Subjects, and Procedures

*Measuring Instruments.* The prereading abilities considered in this undertaking were measured with the second experimental edition of the Clymer-Barrett Prereading Battery. The Battery included the following tasks:

## 11. Performance on Selected Prereading Tasks and First-Grade Reading Achievement

THOMAS C. BARRETT
University of Wisconsin

A NUMBER OF recent investigations provided the framework for the present study by calling attention to certain

624.

1. Recognition of Letters
2. Matching Words
3. Discrimination of Beginning Sounds in Words
4. Discrimination of Vowel Sounds in Words
5. Discrimination of Ending Sounds in Words
6. Shape Completion
7. Copy-A-Sentence

Reading achievement was the total raw score on the Gates Advanced Primary Reading Tests, Word Recognition and Paragraph Reading.

*Subjects.* The initial sample included all the first-grade pupils entering 34 public schools in a middle-sized city in the Midwest. It was composed of slightly more than 3,000 students; however, attrition occurred during the academic year, and complete prereading and reading achievement data were obtained for 2,468 subjects. Although the full range of socioeconomic levels was represented, the majority of the pupils in the final sample were from middle-class homes. Boys and girls were about equally distributed.

*Procedures.* Since the investigation was concerned with the predictive validity of the selected prereading tasks, the data were collected in two stages. During the third week of school, the Prereading Battery was administered to the pupils by the classroom teachers. In the second week in May, or approximately eight months after the Prereading Battery was administered, the pupils completed the Gates tests.

In keeping with the purposes of the investigation, the data were analyzed in two ways. First, the raw scores on each of the tasks in the Prereading Battery were correlated with the total raw scores on the Gates Tests. Second, multiple regression analysis was employed to obtain a multiple correlation coefficient between the predicted and observed reading achievement scores, with the seven tasks as independent variables.

## Results

On the basis of the information presented in *Table 1,* several observations appear to be appropriate with respect to the initial purpose of the study. First, the table indicates that the seven correlation coefficients ranged from .26 to .59 and

TABLE I

CORRELATION COEFFICIENTS FOR SCORES ON EACH OF THE SEVEN PREREADING TASKS AND TOTAL SCORE ON THE GATES ADVANCED PRIMARY READING TESTS

| Pre reading Tasks | Correlation Coefficients for Prereading Tasks and The Gates Advanced Primary |
|---|---|
| Recognition of Letters | .59 |
| Discrimination of Beginning Sounds in Words | .51* |
| Matching Words | .38* |
| Discrimination of Ending Sounds in Words | .38* |
| Shape Completion | .36* |
| Copy-A-Sentence | .36* |
| Discrimination of Vowel Sounds in Words | .26* |

*Significantly different from zero at the .01 level.

that each of them was significantly different from zero at the .01 level. Second, the rank order of the correlation coefficients, as presented in the Table, shows that Recognition of Letters had the highest relationship with beginning reading achievement, .59 while Discrimination of Beginning Sounds in Words correlated second best with the criterion, .51. Third, Table 1 reveals that matching words, discrimination of ending sounds in words, shape completion and copy-a-sentence possessed similar relationships with first-grade reading achievement, *e.g.,* .38, .38, .36, and .36, respectively, but that the magnitudes of the correlation coefficients in these instances were somewhat less than those for Recognition of Letters and Discrimination of Beginning Sounds in Words. Finally, Discrimination of Vowel Sounds in Words, was found to be the least valuable predictor of early reading achievement.

The second purpose of the investigation, as stated earlier, was to determine the predictive value of the seven prereading tasks in combination. To accomplish this objective, a multiple correlation coefficient (R) was obtained by means of multiple regression analysis, in which the seven prereading tasks were the independent variables and reading achievement was the dependent variable. The analysis produced an R of .66 which was significant at the .01 level.

625.

## Discussion

The results of the investigation provide a basis for a number of comments and cautions. First, the finding that recognition of letters and discrimination of beginning sounds in words were relatively good predictors of early reading achievement gives support to the work of Gavel *(4)*, McHugh *(6)*, and Dykstra *(3)*. However, the strong showing of recognition of letters should not only be attributed to the apparent fact that better beginning readers could recognize more letters than poor readers, but also to the possibility that this ability may be a reflection of a rich experience with a variety of written materials which enabled children to learn to recognize letters. Thus, it should not be inferred from this study that teaching children to recognize letters by name will necessarily ensure success in beginning reading. Discrimination of Beginning Sounds, on the other hand, could have achieved its status in the study because of the sequence of phonic skills development followed by most basic reading series; that is, series begin phonic instruction with beginning consonants and the sounds they represent. Nevertheless, it seems that these two prereading abilities possess characteristics which might enable them to provide a quick estimate of youngsters' possible success in beginning reading. At least, they warrant further study with this hypothesis in mind.

Second, although matching words, discrimination of ending sounds, shape completion, and copy-a-sentence did not possess the predictive power of recognition of letters and discrimination of beginning sounds, they may be of diagnostic value. For example, the combination of discrimination of beginning sounds and ending sounds in words may provide diagnostic information about a child's gross ability to perform auditory discrimination as it relates to the actual reading task. On the other hand, matching words, shape completion, copy-a-sentence, and recognition of letters all deal with various dimensions of visual discrimination which are basic to learning to read.

Third, the magnitude of the multiple correlation coefficient found does not permit precise prediction of reading achievement for individuals on the basis of results from the prereading battery. It does indicate, however, that the battery makes a considerable improvement on chance predictions. As is the case with all paper and pencil instruments of this nature, the battery must be supplemented with teacher observation and judgment to do the best job of determining a child's over all preparedness for, and eventual success in, reading.

Finally and in conclusion, the tasks studied, with the possible exception of discrimination of vowel sounds, seem to have predictive and diagnostic possibilities and appear to warrant further study individually and in combination. For example, factor analysis of the Battery as a whole would provide information about its construct validity and would indicate whether it measures the factors of visual discrimination, auditory discrimination, and visual-motor coordination as originally intended by its authors. A second possibility here is an investigation of the ability of the six tasks to predict reading achievement when different methods of instruction are employed. Such an inquiry might provide insights into the diagnostic as well as the predictive value of the tasks. A final recommendation for further study is that the Battery should be cross validated on different samples. Although it functioned relatively well for this middle socio-economic class sample, it should be used with a more heterogeneous sample as well as with a homogeneous lower-class sample to obtain more information about its predictive validity in different settings.

### REFERENCES


1. Barrett, Thomas C. "Visual Discrimination Tasks as Predictors of First Grade Reading Achievement," *The Reading Teacher,* 18 (January 1965), 276-282.
2. Clymer, Theodore. "The Copy-A-Sentence Test as a Predictor of Reading Success in Grades One and Two." Presented at the joint meeting of the IRA, NCRE, and AERA in Chicago, Illinois, February 15, 1963.
3. Dykstra, Robert. *The Relationship Between Selected Reading Readiness Measures of Auditory Discrimination and Reading Achievement at the End of First Grade.* An unpublished doctoral dissertation, University of Minnesota, 1962.





4. Gavel, Sylvia R. "June Reading Achievements of First Grade Children," *Journal of Education,* 140 (February 1958), 37-43.
5. Goins, Jean Turner. *Visual Perception Abilities and Early Reading Progress.* Supplementary Educational Monographs, No. 87. Chicago: University of Chicago Press, 1958.
6. McHugh, Walter J. "Indices of Success in First Grade Reading." A paper presented at the AERA-IRA meeting in Chicago, Illinois, February 15, 1962.


626.

202.

Vol. 9, 64

# C. PSYCHOLOGICAL FOUNDATIONS OF READING

## 1. Vision Readiness and Reading Readiness

268.

LOIS B. BING, O.D.

EDUCATION* is developing many new approaches to teaching children to read. Psychology* is developing programs to facilitate the learning ability of children. Since much that is learned is by means of what is seen, and, since reading is normally a visual act, what of vision and its relationship to learning, and, to reading? There are those in optometry and allied fields who are concentrating on the study of the development of vision



and how children can be helped to learn most effectively by means of what they see.

### Vision Defined

Vision,* when considered in relation to learning and reading, is a *complex process,* involving far more than the ability to discriminate small letters at a distance of 20 feet. Like hearing,* vision "is divisible into no less than three separate parts. These are (1) acuity,* (2) comprehension, and (3) perception. They are listed in this order since chronologically they develop in this order." Vision "is the over-all ability to transmit, integrate, and use the [visual] signal." This process, then, is the concept of vision employed in this paper.

### The Development of Vision

What have we learned about vision? In the early weeks and months of life a child has sight, and vision joins with sucking, and grasping, according to Piaget, to become *the primary avenues of learning.* Haynes'* research shows that as infants lie in the tonic-neck reflex posture, their eyes are aimed and focused on the extended hand—allowing the child to see and thus permitting vision to contribute to cognitive development. Stendler,* feels that infants' eyes need stimulation. They need light. Riesen's* work supports this. His study showed cellular deterioration in the visual cortex of the chimpanzees reared in darkness. Stendler further emphasized that the infant needs seeing experiences. Fantz's* work shows that infants like to look at targets with patterns. During the early weeks of life, seeing is largely with one eye reinforced by one hand. As the infant grows and develops and is more in a position to use two eyes, both eyes and hands come into the act of seeing. Now, the child must develop the highly complex skill of using both eyes and both hands together. At first, according to Getman,* the child learns mainly through the sense of touch, reinforced in *ever increasing amounts by sight.* During the first two years of life the child is in the sensory-motor stage. Evidence* is growing that in this stage it is most important that a child have an opportunity to move about freely, developing the use of both sides of his body, to crawl on all fours, to have many experiences with objects in his world, handling them and looking at them and being stimulated by them through as many of his senses as possible. *Play* is the important "school" of the child. Vision, touch, smell, taste, hearing, all interweave, as a child learns through his play activities. As the child grows and develops, vision should become more and more the dominant avenue by which he learns, extending his world from where he is and what he can touch, feel, smell, taste, and hear, to distant objects. By the time a child is introduced to learning to read he needs to have mastered his visual process. Besides seeing clearly, he must develop to a high level of efficiency the ability to move his *two eyes* together. He needs to be able to see as one what he sees with each eye separately, integrating the *two* images into *one* at a high level of efficiency. He needs to have had abundant experience integrating sensations so that his visual perception has developed to where he has good visual memory, ability to see form, note likenesses and differences in form, properly judge size and space relationships.

### Research Reports

Robinson* and Huelsman, investigating the relationship between visual efficiency and reading progress found:

> The only visual scores which consistently differentiated high and low achievers at these two grade levels involved binocular visual performance. Furthermore, four of the five (tests) utilized convergence and divergence skills. Not one of the current visual screening batteries include these tests.

In a study of vision and achievement in kindergarten, Kephart,* Manas, and Simpson compared school achievement (as measured by the Metropolitan Readiness Test) with measures of twenty visual skills and concluded:

> The results of this study demonstrate a substantial relationship between visual skills and school achievement at the kindergarten level.

Measures of eye movements, stereopsis, and visual efficiency at far and near distances were found to be particularly significant. Hinds,* reporting on a study of the relationship of vision to reading

*Used to denote items for which additional information is given in a more comprehensive paper obtainable from the writer in limited number.

627.

achievement in the first grade stated that children with poor functional* vision had poorer reading readiness and reading achievement scores and started formal reading at a later time than children with good functions.

The Glenbrook study, likewise, showed a significant relationship between vision at the first grade level and achievement in reading. Furthermore, the first grade vision scores were found to be significant indicators of school achievement for the next five grades. Eye movement skills and visual efficiency scores showed highest correlations. No relationship was found between tests of visual acuity and school achievement.

Dietrich* and Flax compared scores on the CVAF (Children's Visual Achievement Forms) with educational achievement in grades one through four. Using the mean and standard deviation analysis of the data, there appeared to be *no* relationship. However, arranging the scores in deciles for plotting, the data showed that if a child scored *low* on the CVAF there was a marked relationship between his score on the CVAF and his achievement in the first grade. A score of 58 or above showed no relationship. The same curve was obtained from the data for grades two, three, and four. This could allow the interpretation that maturation, development, and the normal school and home experiences did not help those with low scores on the CVAF. Experimentally, we know that through programed vision care, which includes visual training, children can be helped to improve their ability to perform this visual motor test. This data also suggest the advisability of having therapy *early* in the child's school life.

Kephart* speaks of the importance of the consistency of the input data (initial visual sensation), saying, "the interference caused by minor defects is transient and interferes with the consistency of the information. The interference from the major defect is always present and therefore can be compensated." Held* found that changing the input data, through varying the amounts of prism before the eyes, interfered markedly with learning. Held's work also shows the importance of the early activity of the child—freedom to move about in space with an abundance of experience through manipulating objects. His subjects, for whom either the auditory or the visual input data was distorted by scientific control, made exact compensation for the distortion *only* when allowed to move freely about in space. *Just hearing* and *just seeing* were not enough.

Held's work and that of others have shown there is a motor factor in form perception. Zatoroshets emphasizes that "the perceptual process is not passive, it takes motor activity." Visual input* is variable. *The* important element of the visual input (or any input) is that it be consistent. In the area of comprehension and perception a composite of all sensory stimuli past and present takes place. These are incoded into an output, some of which go to stimulate resulting muscular activity and some serve as a feed back modifying the visual input. Kephart* states:

> In the perceptual process, this feedback-output pattern becomes in itself a part of input. As the feedback reenters on the input end of the system, it alters the input pattern and thereby calls for a new cycle of the perceptual process.
>
> Through the feedback mechanism, the process is perpetuated until an adequate response has been generated. The feedback is used as a control system which becomes self-monitoring.

If there is a deficiency in one sense modality the total output will be affected. If there is inconsistency of input, learning is seriously hampered through that sense modality.

In discussing vision we need to emphasize the importance of not considering vision in isolation. There are external and internal stress* factors affecting the child which will serve to alter the consistency of the visual input data. These need to be understood and included in a vision care program.

## Summary

Vision, as a complex process, is especially important at the beginning reading level. Many children are visually ready for reading by the first grade. Some children, due to various factors, do not develop their process of vision to a level at which they can learn at all, or learn easily, by means of what they see by the time they enter school. These children will need professional help with a fitting for glasses, visual training, and developmental activities before they can learn by means of what they see.

Consistency of input data, by whatever means believed to be best, is a desirable attribute of any method of teaching reading.* Shutting out interfering stimuli is desirable. Presenting the material at a distance will help some children. Testing programs should be used to know which children will need help *before* conventional reading readiness is initiated. School readiness should begin in nursery school and home activities. The wide range in cultural backgrounds of the children makes this imperative. Teachers (in lieu of, or as a helpful adjunct to a testing program) can be most effective in finding those children who will need visual help by recognizing symptoms* of visual difficulty children display in the classroom. Through the application of present day knowledge many children can be kept in their true achievement potential channel. Terms such as "word-blind," "psychological," and "emotional," can be used less as research seeks causes and finds programs to help these children. Let us not be content with labels, but rather resolve to continue searching for better answers to the problems of children.

628.

203.

## 2. Detecting and Correcting Reading Deficiencies Day-by-Day

243.

GRACE M. COUNCILL
Appalachian State Teachers College

TO DETECT READING deficiencies of children in the primary grades requires an understanding of what to expect of this age child. It also requires a knowledge of what reading skills should be taught and when to teach each skill as well as a keen observation of each child's needs and a knowledge of how to care for these needs.

A check list of reading skills to be taught simplifies the job. Such a check list should be kept in a convenient place. As observations are made, weaknesses are checked; and at the earliest possible time, reinforced teaching takes place.

An example of such a check list is available. Due to our limited space, suggestions will be made for the corrections of only a few of the items listed.

First let us consider the area of readiness for reading in the primary grades.

The lack of social and emotional readiness may be indicated by a lack of interest in learning to read. To overcome this aspect we read stories and poems to children. They are introduced to the library and encouraged to browse. Simple messages are written in manuscript on the chalk board, and the bulletin board is used to arouse the child's curiosity and to



help him feel a need for reading. An interest is shown in the child; and when curiosity is shown by the child, favorable comments are made. A smile and a kind word encourage initiative and resourcefulness. Simple procedures, such as following directions to a surprise, puppets of various kinds, dramatizations of stories, or use of flannel board, encourage those who otherwise would hesitate to take part in activities.

Children need time to enjoy pictures found in attractive books, time to listen to things around us and to records, and time to see and observe.

Many supplementary readers are needed to provide for the varied interests of children. These supplementary readers should range from the easy to the relatively difficult ones.

Parents should be helped to take an interest in and show enthusiasm for their children's work at school. Teachers should give praise in detail when the child has done a job well. We should give children our full attention and be specific with criticisms. Too many criticisms given at a time tend to discourage, as do difficulties discussed with others, either at home or at school.

Patience does much to give a child a feeling of security. Finding small jobs within the child's ability is good. Be sure that the materials used are not too difficult for the child to use and that he understands how to use them.

Teachers can help a child to have something interesting to share with others and thus promote better social adjustment.

Choral reading which begins with a short part of a story repeated in unison, as well as more advanced choral reading, does much to give a child a feeling that he belongs.

If children are involved in activities such as using puppets and the flannel board, they feel more secure and more a part of the group.

Physical readiness is important in reading at all levels, but it is particularly so in the primary grades. Many children hear or see poorly because of physical defects that require medical attention. These should be detected by screening tests, reported to parents, and referred to medical authorities. Some primary children have not developed near-point vision to the extent that they are ready to deal with printed material at ordinary reading distance. For these children large manuscript experience charts and books with large print can be used to advantage.

Until recently it was assumed that a mental age of 6.5 years was considered essential for success in beginning reading. Now, many authorities believe that it is neither possible nor desirable to establish an arbitrary mental age that will apply equally in all cases.

While some children come to school ready to learn how to read, others need help in developing readiness. The level of readiness can be determined by such means as teacher observation and readiness tests. For those children who lack readiness some or all of the six instructional jobs suggested by McKee (*1*) might be carried out: (1) providing training in visual discrimination, (2) providing training in auditory discrimination, (3) developing the understanding that reading matter is to be observed from left to right, (4) providing training in listening, (5) creating a desire to learn to read, and (6) if necessary, constructing concepts and developing vocabulary needed for beginning reading.

Initial sight vocabulary makes use of the listening vocabulary of children. Writers of basal readers for primary grades strive to limit the words used in their selections to words in children's listening vocabularies. This practise removes some meaning difficulties. The child is taught to observe the form of the word and to think the pronunciation. Thus he is taught to look at the form of the word and is stimulated to associate the pronunciation of the word with its meaning and form.

To build the initial sight vocabulary experience booklets, charts, and preprimers may be used to advantage. Pupils' names, directions, charts or cards of action words, news items, additional preprimers, signs, and labels may be used. Words are used over and over in many new sentences and new settings. These words they associate with action, with pictures, and with objects. The development of sight vocabulary should be con-

629.

tinued beyond the primary level.

Word recognition may be done through activities such as matching and finding the correct word to fill in a blank. Sentences containing words desired as sight words may be used under pictures.

Authorities do not agree on the number of words the initial sight vocabulary should include; and they should not, for it would probably vary from child to child. As the reader feels a need to identify unfamiliar words, the word-attack skills are presented.

As these skills are taught, the teacher should be constantly alert for weaknesses and strengths of individuals and of the group. The teacher should take the appropriate steps building on strengths to correct the specific weaknesses as soon as they are detected. For at least some of the children, these word-attack skills will need to be taught and retaught for adequate mastery.

The word-attack skills introduced in the primary grades (and continued in higher grades for those children who need them) include word-form clues, context and picture clues, structural and phonetic analysis, and use of the dictionary.

Children should understand that it is desirable to use two or more word-attack skills in combination rather than to depend on any one skill in isolation. Constant use of these skills in meaningful situations reinforces the initial teaching. Many and varied activities in line with the interest and achievement level of the children make for effective learning. Ruth Strang (*2*) says: "There are few, if any, children who cannot learn to read better if they are given time to grow and if they are provided with favorable learning conditions." Surely teachers are not aware of the many thousand who are, at least partially, reading cripples.

Boys and girls probably read better today than ever before, but we are still falling short of our responsibilities as teachers. Failing to read adequately produces a variety of forms of educational and personality maladjustment.

If we can detect deficiencies and correct these deficiencies day-by-day in the primary grades, children need not be reading cripples. Severe problems usually start out as simple ones and frequently occur in the primary grades.

REFERENCES

1. McKee, Paul. *The Teaching of Reading in the Elementary School.* Boston: Houghton Mifflin Company, 1948.
2. Strang, Ruth. *Helping Your Child Improve His Reading.* New York: E. P. Dutton and Co., Inc., 1962.

630.

204.

Vol. 10, 65

357.

# E. MULTI-DISCIPLINE APPROACH TO READING

## 1. The Role of Vision in Reading Readiness

MARVIN EFRON, O. D.
University of South Carolina

GOOD VISION means more than just being able to see small letters. The seeing of small letters is called visual acuity and is only one of the numerous visual skills. Others include fusion skills, color discrimination, and binocular coordination which is using the two eyes as an efficient team. The sum of these skills is called vision.

Since reading depends on seeing words and interpreting them, the visual process is a natural part of the reading act, and malfunction in vision can reflect itself in reading.

Authorities disagree on the relative importance of visual skills in relation to reading achievement. Discussing the effects of vision on reading achievement, Betts[1] states that attempts to predict reading ability merely on the basis of certain tests of seeing have never been successful. Certain visual defects such as myopia, in small degrees, may be positively related to reading achievement. Myopia is commonly called nearsightedness, and this condition results in a person's being visually comfortable seeing hand-held print and visually uncomfortable while viewing distant objects. It follows that a student with myopia may achieve better efficiency at near point tasks than at far point tasks.

Reporting his investigations of the literature, Russell[2] saw little agreement in different studies of visual skills related to reading achievement. He did not find any conclusive studies on visual acuity, refractive errors, binocular coordination, fusion, and size of visual fields being related to reading achievement. Spache,[3] however, found that functional difficulties of the visual system did effect reading achievement. He found defective patterns of eye movements reflected in such performance of reading as loss of place, omission, excessive repetition, and slow rate.

In other studies, DeBoer and Dallman[4] noted that probably almost all readers with visual problems would improve their reading ability if they corrected these defects. These authors also feel that teachers should be alerted to signs of visual difficulties among their pupils.

Visual skills develop early in a child, and if these are not made efficient at an early age, they may play an important part in producing a lack of readiness to read. In many cases, these defects accompany other physiological factors. The combination tends to produce immaturity and to accentuate the difficulty in learning to read.

Although studies have been conducted to show a relationship between vision and reading achievement, few significant relationships between these two were found when the research method included testing large school populations. Results have been more fruitful when the comparison was made between the ocular characteristics of groups of very good readers and groups of very poor readers.

[1]Emmett A. Betts. *Foundations of Reading Instruction*. New York: American Book Co., 1954.
[2]David H. Russell. *Children Learn To Read*. Boston: Ginn and Co., 1961.
[3]George D. Spache. *Reading In the Elementary School*. Boston: Allyn and Bacon, 1964.
[4]John J. DeBoer and Martha Dallman *The Teaching of Reading*. New York: Henry Holt and Co., 1960.

631.

Before the entire picture of the place of vision in reading achievement is clear, more research is needed; and with the Federal Government interested in reading research, some emphasis probably will be in this direction. A recent publication of the Office of Education of the Department of Health, Education, and Welfare suggested some study be made of visual difficulties not detected by screening devices used in the schools in relation to beginning reading. In a few years, we hopefully will not find as much disagreement in reviews of reading research about the importance of visual skills in reading achievement.

There are however, certain basic ideas that have been excepted from the various studies of vision which have general validity and application.

Vision cannot be separated from the general field of human development. Visual development is related to the development of other parts of the body, such as oculomotor muscle development, hand-eye coordination, and the learning of special relationships. This interplay of physical function, including vision, characterizes human development. These developmental tasks require readiness.

Readiness is an essential factor in learning, and if an individual is to learn, some foundation for that learning must be established. Authorities agree that readiness in the visual mechanism is necessary for success in reading. Spache[5] writes, "The visual skills of the young child are, in our opinion, the most significant factor in his early reading success."

The visual ability of children entering the first grade varies and there are many individual differences. Monroe and Rodgers[6] state:

> The visual abilities of five- and six-year-olds vary greatly at the time of school entrance, partly because of physical differences and partly because of the differing experiences the children have had. Some children have developed habits of careful observation and scrutiny of details. Others have learned to react only to the gross visual differences among objects in their environment. Those children who have enjoyed many opportunities for interesting play with manipulative toys during their preschool life have, in most cases, developed considerable ability to adjust their eyes and hold their attention to close work. Children who have lacked toys and equipment for manipulation are especially in need of manipulative activities and experience at school.

Vision develops like any of the other learned functions of the body. If a function is to develop it needs to be subject to stimulation. There is a controversy as to which is more important, maturation or experience, but it is agreed that both are important for vision to become efficient.

Many times culturally deprived children lack these stimuli. Usually, these children experience language retardation as well as visual retardation. They have not been exposed to books, magazines, or drawing materials, which develop hand-eye coordination and fine motor development. Culturally deprived children are a real problem in our schools, and programs are being initiated under the Operation Headstart Program to give these children the experiences needed to successfully compete with children who have had normal learning experiences. While crash programs to induce readiness do not take the place of the experiences normally organized in the home, tentative reports indicate some positive results. The readiness skills that are emphasized are hand-eye coordination, visual motor skills, and visual perception skills.

In conclusion, we can say that there is much to be learned about the relationship of vision development and reading achievement, but we are learning more, and each year children with these problems are more easily identified and rehabilitated.

[5] *Op. cit.*
[6] *Op. cit.*

632

205.

Vol. 9 ,64

# 2. Vision Motor Perception Program in the Brentwood Public Schools

271.

LAWRENCE N. GOULD,
EDWARD HENDERSON and
RAYMOND L. SCHEELE

THIS PAPER describes the early development of the Vision-Motor-Perception (VMP) Program* in the Brentwood Public Schools.

The following are some of the elements of the rationale of the program:

1. Structural visual defects are related to functional visual problems.
2. Sensory motor activities are related to perceptual operations.
3. Adequacy of perception is related to cognitive growth.

*We realize that any separation of vision, motor or perception experiences into single units is an artifice used only for purposes of examination and programing.



## Theoretical Considerations

The development of vision is part of the total body development. It is determined by sensory-motor experiences. These are the experiences which we can structure in the classroom. Specifically classroom experiences can be designed to increase the bilaterality of the body which affects the continued development of visual binocularity and reduces the stress of visual tasks by the reduction of convergence and accommodative demands as well as builds accommodative and convergence facility. Failure to organize these experiences has led to the instance of visual problems as shown by the increase in the percentage of children with functional and structural visual problems in the succeeding grades in elementary schools. The eyes, as well as the total body, are affected by the amount and type of stress that function places on structure.

If the child's level of confidence in his sensory mechanism is low so that it prevents him from accepting the information received by his brain, he will continually return to the source of the stimulus to reassure himself of the nature of that stimulus. The converse is the condition where poor control of the sensory mechanism initiates a low level of confidence in the received data. If we assume that the body continuously directs itself to receive a maximum amount of pertinent afferent sensory data so that it may better accommodate to the environment, poor neural coordination would prevent maximum assimilation. Assimilation would also be impaired by the inhibitions of one or more of the sensory mechanisms involved. Hebb states that learning is reinforced by the coordination of two or more sensory mechanisms. These factors would affect the centering and identifying mechanisms of the body in its response to the stimulus.

The cumulative nature of the actions helps to establish the individual's body image. Fisher & Cleveland (1958) discuss body image as "the individual's subjective experiences with his body and the manner in which he has organized these experiences. The assumption is that as each individual develops, he has the difficult task of meaningfully organizing the sensations from his body—*which is one*

633.

*of the most important and complex phenomena in his total perceptual field"* (our italics).

Werner & Wapner (1949) take the point of view that the body (body-image) as a field of sensation and experience must be taken into account in understanding perception.

Halpern (1964) postulates that the individual who has a well developed body-image, based on reality, is most capable of receiving afferent sensory data. It follows from this that the individual with the better body-image is then in a position to better interact with the environment, thereby increasing the foundation for the adequacy of perception.

Koffka (1935) comments that ". . . the local kinesthetic processes . . . in their entirety . . . help to organize the ego, (they) are not independent local events but part . . . (of) a larger system of events."

Included in this larger system of events are the motor and cognitive aspects of speech. "External speech" is a stimulus, or instigator, for organizing "inner speech" and "inner thought." External speech is a sensory-motor action that modifies the environment that influences the child. The control of motor activities increases when the task is accompanied by the "impellant action" of predominantly motor aspects of the child's own speech. This exclusively "grunting" stage is modified by the introduction of words into external speech, the cognitive aspect. Acting a second signal system in the body, external speech is gradually reduced and simultaneously acts as an organizer of internal speech. Luria and Vygotski conclude that, ultimately, internal speech affects the development of internal thought or cognitive processes.

Current psychological and physiological research and theory by Piaget, Hebb, Bruner, Smith and Smith, among others, has indicated that these cognitive processes derive from sensory-motor experiences.

A significant implication of this concept is that the greater the variety of sensory-motor experiences, the more numerous will be the resulting cognitive structures and the more numerous the cognitive structures, the greater is the variety of tasks that can be resolved.

Therefore, the kindergarten and primary grade curriculum should generate activities comprised of sight, auditory discrimination, proprioception, kinesthesia and speech as a means of enhancing the development of cognitive operations and as the means to reduce the rate of occurrence of functional and structural visual problems.

In the VMP program, then, it is proposed that as the child (1) increasingly succeeds in goal-oriented sensory-motor activities, (2) develops his body image, and (3) employs logical operations in classroom activities, he forms his self-concept as a learner. Through a positive self-concept, an interest in learning should be sustained.

## Classroom Implementation

It is emphasized that although we will be describing a number of classroom activities, these activities, in and of themselves, are not solely capable of achieving the intended objectives of the VMP program. Rather, it is the manner in which these are programed as a reflection of our total classroom philosophy that will determine whether the objectives will be successfully achieved.

A goal of the program is for the child to become a self-regulating and self-evaluating person, confident in his capacity to think. The child needs to develop cognitive flexibility, accepting, discarding or resynthesizing information to choose the appropriate cognitive strategy to meet the demands of a particular problem setting. Classroom teachers are to minimize value judgments on children's performances and to foster the child's flexibility in approaching a problem and his accuracy in communicating his conclusions.

## Motor Activities

All intellectual processes have their origin in sensory-motor activities. Initial emphasis is placed on behavior involving motor-coordination activities. These activities are programed in a developmental sequence from gross muscle to small muscle control. We recognize that there will be children who are already proficient in many areas of motor coordination when they enter school, but these students who have motor coordination skills will still benefit from parallel activities, and those

lacking these skills will be given an opportunity to achieve them. After basic movement patterns involving gross motor actions have been learned, refinements of these activities are continued in game form. All of these activties are designed to stress the visual steering aspect of the body movements.

Since the concept of "body image" is considered to be essential to the child's ability to function in formal learning, great emphasis is placed on programing experiences that strengthen his "body image." The progression of these activities proceeds from gross to small muscle activities and from overt to covert activities such as space conceptualization. The gross activities stress recognition and control of various parts of the body.

The progression is from overt to covert motor activities. Examples of covert activities are the mental images of or descriptions of overt activities of the past or the future. In all cases there is a mental synthesis of elements of past overt sensory-motor experiences. A simple example reflecting this relationship between overt movement and covert cognition is the child describing directions for movement and the areas passed in traveling from his classroom to some other area in the school, or from the street outside his home to his bedroom. The complexity of this task is increased when estimations of relative distance are given. When the child thinks of what he does when he leaps, skips or plays any particular game, or when he verbally describes these by giving directions to another on how to perform these acts he is engaging in a covert mental activity derived from past overt experiences.

These activities may be communicated orally, in written form, or in graphic form as with a representative map of directions. The written form is dependent on the level of the child's ability, and, when adjusted for the complexity of description, may be used at different grade levels.

Motor activitiees, overt and covert, are programed as both full-period activities and as short one to five minute activities during the breaks in the classroom day.

### Vision

Vision is a motor activity and responds to training. Games and activities which increase the control of extra-ocular muscles include those designed for pursuit and saccadic movements. Pursuit movement is the smooth continuous action of the eyes in following a target whereas saccadic movement is the discrete movement of the eyes from one fixation point to another. Both of these movements are used in reading. For pursuit movements the VMP program utilizes a pendulum-type of apparatus in the classroom that the children follow with their eyes; also, a wood or plastic bead strung on a stiff wire that is manipulated by the child while his eyes follow the bead sliding on the wire.

Chalkboard activities emphasizing laterality of body movement and visual steering of movement are also used in kindergarten and first grade. Chalkboard activities position the child approximately 12-18 inches away from the chalkboard. With a piece of chalk in each hand and with his eyes fixated on a mark on the board, at nose level, the child moves his arms so that they trace on the board large circles on either side of his fixation point. The bibliography of both Getman and Kephart give a more detailed discussion of these procedures. This kind of activity tends to increase facility in eye-hand coordination and bilaterality. It might be noted that all of the game activities incorporate means that are used to link motor movement with its visual component. For example, in the game," "Angel in the Snow," the eyes are used to follow the movement of the arms and/or legs. This type of activity is prerequisite replacing actual body movement by visual scanning when relating to an object in the environment.

The design of the classroom activities also emphasizes directionality of movement and location of objects using the body as the point of reference. In the physical games, movement patterns are required that stress the sides as well as the upper and lower parts of the body. The ability to discern and control the quadrants of the body—the child's implicit knowledge of directionality—internalizes the body image incorporating an explicit awareness of direction and its relation to the surrounding environment. The speculation is that the program will provide an experimental sensory-motor common

denominator upon which curricula can be organized to stress the development of specific cognitive operations (i.e., identity, addition and subtraction; these being the elements of formal thinking, the final stages of cognitive growth in Piaget's theory). Activities that are heavily weighted in motor coordination are paralleled by those which give experiences to the child which emphasize cognitive operations.

## Perception

One of the tools which has been effective for presenting the material to be used in cognitive operations is the tachistoscope. This device is used to project various slides at 1/25th of a second to which the child responds verbally or graphically. We hypothesize that by using the tachistoscope the child will be more able:

1. To systematically distribute his visual concentration both at near-point and far-point visual tasks through practicing changing visual fixation from a distance to a near-point task, and by practicing centering and visual identifying ability.*
2. To develop an increased attention span.
3. To develop an increased ability of recall.
4. To describe a visual image by either speech or graphic presentation.
5. To receive and follow directions (auditory skills).
6. To maintain a positive self-concept as a successful pupil by fulfilling tasks related to formal learning situations in classrooms. From this an interest in school and learning should be sustained.
7. To develop a visualization process that notes the part of, as well as, the totality of the visual stimulus.
8. To both analyze and synthesize two or more images through visual memory.

The level of difficulty of our units is progressively increased by decreasing the degree of differences required for discrimination. Great emphasis is placed on the noting of differences. Complexity of the design and the operations that are required are scaled on the basis of difficulty.

## Speech

An important aspect of the tachistoscopic units is the opportunity they offer for the child to develop verbalization skills. One activity requires one child to give verbal directions to another child stationed at the chalkboard who will, in turn, translate this description into a graphic representation. The teacher's tightly structured questions, too, are designed to evoke verbal and/or graphic responses that stress the concept of directionality.

## Evaluation of the VMP Program

A study to evaluate the VMP program is currently being designed. In this design, an attempt will be made to evaluate the (1) emergence of operations in thought, (2) development of self-concept, (3) incidence of visual anomalies and, (4) effects in formal school performance as the children move through the grades.

One pilot study of the effectiveness of the VMP program in developing readiness for school learning has been conducted. The Metropolitan Reading Readiness Test was administered for 262 kindergarten children in the VMP program and to 226 controls. The tests of differences between means showed that the VMP children achieved significantly higher mean score values for the subtests in sentences, information, matching, numbers, total reading and total readiness. These differences were significant at beyond the .01 level of confidence.

The program appeared to be slightly more effective with boys than with girls. The VMP boys obtained a total battery mean of 78.9 and the control group boys a mean of 72.8. The VMP girls obtained a mean of 80.1 and the control group girls a mean of 76.9.

It must be recognized that while this pilot study is indicative of effects of the VMP program, uncontrolled factors such as teacher differences, Hawthorne effect, or ability differences between groups could also be affecting these results.

## Implications

1. An evaluation was made of the

*Centering is a term that is applied to a tropism of the body for any given type of stimulus, whereas identification involves a "fit" between the attributes of the stimulus input and the attributes of a category.

extra-ocular motor skills of some kindergarten children. A simple rating scale was used to note the degree of coordination and fluidity of pursuit and saccadic movements. The child's position on the scale was then compared to his score on the Metropolitan Reading Readiness Test. Empirically, there appeared to be a high degree of correspondence between the score of the ocular motility scale and those of the Metropolitan Reading Readiness Test. A high score on one was closely matched with a high score on the other and vice-versa. The implication is that the improvement in ocular motility would improve reading readiness at the kindergarten level.

2. In a recent pilot study by Wolf (1964) based on a limited sample of children watching educational television, children's eye movements were recorded on film, rated into three categories of movement, and then compared with their IQ scores. Results indicated that those children who showed the least amount of eye movement observing the screen were found to be in the higher IQ group. One could infer from the Wolf study, that when the complexity of the televised material increased beyond the possibility of assimilating the information from it, then the movement aimed at achieving accommodation ceased.

While the data from this study must be regarded as exploratory, it does relate to an hypothesis of the VMP program that can be investigated, namely, that the higher IQ child gains enough information with the initial fixation to enable him to relate to the visual object of regard without the continual searching movements aimed at securing relevant details that is the behavior of the child who places in the lower IQ group.

## Summary

The VMP program utilizes a curriculum which establishes a common base of sensory-motor actions for the students. Materials embodying specific cognitive operations that are fundamental, in Piaget's theory, to logical thinking are programmed into this curriculum. In general, a vast array of physical activities involving sensory-motor schemata will be correlated to cognitive activities involving formal operations and through this we expect to hasten the ontogenetic development of cognitive structures and to enhance the resulting cognitive ability of the child.

We believe that as a child improves the adequacy of his body image he will increase his ability to receive affereant sensory data and thereby improve his body image; concurrently, there will be a reduction in the incidence of visual anomalies. We further believe that the greater visual efficiency and the more adequate body image will allow for more effective assimilation and accommodation or adaptation thereby substantially affecting the ability to learn.

## BIBLIOGRAPHY

Bruner, Goodnow, Austin. *Study of Thinking,* New York, John Wiley & Sons, Inc., 1956.

Fisher, S., and Cleveland, S. E. *Body Image and Personality,* Princeton, N. J., D. Van Nostrand Company, Inc., 1958.

Flavell, J. H. *The Developmental Psychology of Jean Piaget,* Princeton, N. J., D. Van Nostrand Company, Inc., 1963.

Getman, G. N. *How to Improve Your Child's Intelligence,* published privately, Luverne, Minn., 1962.

Halpern, Seymour. *Part II:* Hypno-introspection; a contribution to the theory of hypotherapy. (Submitted for publication 1964.)

Hebb, D. O. *The Organization of Behavior,* New York, John Wiley & Sons, 1949.

Hunt, J. McV. *Intelligence and Experience,* New York, Ronald Press Co., 1961.

Kephart, N. G. *The Slow Learner in the Classroom,* Columbus, Ohio, Charles E. Merrill Books, Inc., 1960.

Koffka, K. *Principles of Gestalt Psychology,* New York, Harcourt, Brace and Company, Inc., 1945, pp. 328-329.

Luria, A. R. *The Role of Speech in the Regulation of Normal and Abnormal Behavior,* New York, Liveright Publishing Corp., 1961.

Piaget, Jean. *Origins of Intelligence in Children,* New York, International Universities Press, 1952.

Smith, K. V., and Smith, W. M. *Perception and Motion,* W. B. Saunders, 1962.

Werner, H., and Wapner, S. *Sensory-tonic Field Theory of Perception,* J. Person, 18: 88-107, 1949.

Wolf, Willarene, et al. *Part I:* An experimental system for eye-movement studies in dynamic bi-dimensional fields. *Part II:* An eye-movement study of children viewing television. Bur. Educ. Research & Serv., Ohio State U., 1964.

Vygotski, Lev Semenovich. *Thought and Language* (MIT Press, Cambridge, 1962).



637.

206.

Vol. 10, 1965



## 2. Studies in Reading Readiness

ROBERT L. HILLERICH
Glenview, Illinois Public Schools

READING READINESS has been defined directly and by implication in many ways. Generally speaking, it represents progress in two areas of living: one area is time—time for growth and development; the second area is experience or training. Whether a given school emphasizes the time or the experience factor, reading readiness may be judged successful or not in terms of the eventual success or lack of success of pupils in reading.

Current research in reading readiness and early reading instruction has made us question many traditional practices relating to the readiness of children. First, the mental age criterion (*11*) has been refuted on several counts: Schram (*16*) pointed out the influence of television on the vocabulary of pre-school children; Anderson (*1*) found that mental age was not a significant factor in learning certain pre-reading skills; a number of other studies show low correlations between mental age and beginning reading. Second, Karlin (*8*) and Bremer (*3*) have indicated that general reading readiness tests have little predictive value. Finally, Eames (*5*) reported that visual maturity of five-year-olds was adequate for reading.

### Research Emphasis Today

Crucial questions in research today seem to revolve around two related points: what kind of pre-reading instruction is most effective, and when should formal instruction begin? The research evidence may seem contradictory in respect to this double question, but I believe a pattern is apparent.

A number of studies have investigated the relationship between knowledge of letters and reading achievement. Nicholson (*13*) found that most children can discriminate letter forms prior to instruction. Olson (*14*) and McHugh (*10*) found that knowledge of letter names prior to instruction correlated more highly with reading achievement than did a reading readiness test.

In contrast, Linehan (*9*) reported that teaching letter names did not lead to significantly higher reading achievement. Muehl (*12*) found that knowledge of letter names actually interfered with learning to associate nonsense words with pictures.

Considering the findings of these studies, one might conclude that, while knowledge of letter names may be a good predictor of future success in reading, it is not necessarily a causal factor.

### Formal Instruction in Kindergarten

Studies of formal programs in kindergarten and of the use of workbooks for reading readiness instruction appear to be even more contradictory. I'd like briefly to review five studies and then attempt to describe a pattern.

Blakely and Shadle (*2*) compared the use of *We Read Pictures* with an informal program. While there were no significant differences in the case of girls, boys gained more in the informal program.

Ploghoft (*15*) reported no significant differences in a similar comparison, although the unspecified workbook was used for only nine weeks. Both of these studies involved only one section of children in each treatment group.

Brzeinski (*4*) reported a large-scale study of the effectiveness of a formal skills program in kindergarten. Using *Getting Ready to Read,* he found that the formal program in kindergarten followed by an adjusted first grade program resulted in significantly higher scores on the Gates Reading Tests at the end of first grade.

In another study with the same program, Hillerich (*7*) reported on several aspects of formal reading readiness in kindergarten. He found that 83 per cent of the children developed adequate skill in kindergarten, that retention was good over the summer, that workbooks were significantly more effective than the same program was without workbooks, and that the program in kindergarten led to significantly higher scores on the Primary Reading Profiles at the end of first grade.

In contrast to these findings, Fry (*6*) found that children who received no reading readiness instruction scored significantly higher on a word recognition test than did those who received readiness instruction. His "readiness" group used *Before We Read, We Read Pictures,* and

638.

*We Read More Pictures* in first grade, while the "non-readiness" group began the readers immediately.

## Some Conclusions

First of all, what kinds of readiness experiences are necessary for success in reading? Of the studies we've examined, the programs that contribute to success are of two kinds: an experience approach appears better than a workbook approach when the latter involves interpreting pictures and/or gross kinds of discrimination; a program teaching the use of context and consonant-letter-sound associations seems better than an experience approach, and the use of a workbook with this kind of program was the most effective. The studies consistently separate in terms of this difference in readiness content. This division suggests to me that the traditional experience approach and the general kind of readiness workbook are teaching relatively the same thing. Neither develops specific skills, but the experience approach has the advantage of spontaneity and enthusiasm.

A second point from these studies relates to tests used. If reading readiness is viewed as a collection of skills or abilities, general readiness tests will not measure these skills. While a number of the studies reported did use readiness tests, the low correlation between these tests and reading achievement makes their use questionable. Furthermore, the true test of any reading readiness program lies in its contribution to success in reading. One might even speculate here that general readiness tests and general readiness programs are a circular process wherein each has helped to perpetuate the other.

Third, in any study, we leave an element uncontrolled when the groups compared use different programs. For example, Fry was comparing groups on the effectiveness of reading readiness as opposed to no reading readiness. Yet, another variable was the use of two different reading programs with the groups.

Finally, and by far the most important similarity in these studies, the age at which children *begin* instruction in reading seems to be a significant factor. In Fry's study, for example, the readiness work itself—or the differences in the reading programs—is probably not nearly so significant as the factor of time. At the mid-December testing all but three of twelve readiness groups were already in primers.

Some guidelines for future research are apparent from these studies. Selection of tests ought to be made in terms of what is being measured; one cannot truly evaluate the success of a readiness program with a general readiness test, nor does a word recognition test adequately measure reading achievement. Care must also be taken to control such obvious variables as the type of reading program which follows a comparison of readiness treatments. The reported differences in the success of various approaches to readiness points up the importance of specifying the programs being compared in any study; failure to state the program used makes a research study worthless to the reader.

More longitudinal studies such as those in Denver and in Glenview are needed to investigate other programs. Are these two programs successful merely because of a running start — as many synthetic phonic programs seem to be — or will youngsters continue to progress more rapidly in reading as they advance in the grades? Success is not a short-term affair, but perhaps neither is failure. Would some of the other studies which showed no significant differences at the end of kindergarten have produced different results on a long-term basis?

Although the issues are not resolved, we have made great strides in recent years. Reading readiness is becoming less nebulous as we identify certain pre-reading skills which lead to success in reading. The old taboos are being broken down as we learn more about early reading. Yes, we live in an exciting age; youngsters today and tomorrow will reap the benefits.

## References

1. Anderson, D. M., A Study to Determine if Children Need a Mental Age of Six Years and Six Months to Learn to Identify Strange Printed Word Forms When They Are Taught to Use Oral Context and the Initial Sound of the Word. Unpublished Ed. D. Dissertation, Greeley: Colorado State College, 1960.
2. Blakely, P. W., and Shadle, E. M., "A Study of Two Readiness-for-Reading Programs in Kindergarten," *Elementary Eng-*

639.

*lish,* XXXVIII (November, 1961), pp. 502-505.
3. Bremer, N., "Do Readiness Tests Predict Success in Reading?" *Elementary School Journal,* LIX (January, 1959), pp. 222-224.
4. Brzeinski, J. E., "Beginning Reading in Denver," *Reading Teacher,* XVIII (October, 1964), pp. 16-21.
5. Eames, T., "Physical Factors in Reading," *Reading Teacher,* XV (May, 1962), p. 432.
6. Fry, E., "Are Reading Readiness Materials Necessary in the First Grade?" Paper presented at American Educational Reseach Association meeting, Chicago, February, 1965.
7. Hillerich, R. L., "Pre-Reading Skills in Kindergarten: A Second Report," *Elementary School Journal,* LXV (March, 1965), pp. 312-317.
8. Karlin, R., "The Prediction of Reading Success and Reading-Readiness Tests," *Elementary English,* XXXIV (May, 1957), pp. 320-322.
9. Linehan, E. B., Early Instruction in Letter Names and Sounds as Related to Success in Beginning Reading. Unpublished Ed. D. Dissertation, Boston: Boston University, 1957.
10. McHugh, W. J., "Indices of Success in First Grade Reading," Paper presented at American Educational Research Association meeting, Chicago, February, 1962.
11. Morphett, M. V., and Washburne, C., "When Should Children Begin to Read?" *Elementary School Journal,* XXXI (March, 1931), pp. 496-503.
12. Muehl, S., "The Effects of Letter-Name Knowledge on Learning to Read a Word List in Kindergarten Children," *Journal of Educational Psychology,* LIII (August, 1962), pp. 181-186.
13. Nicholson, A., Background Abilities Related to Reading Success in First Grade. Unpublished Ed. D. Dissertation, Boston: Boston University, 1957.
14. Olson, A. V., Jr., Growth in Word Perception as it Relates to Success in Beginning Reading. Unpublished Ed. D. Dissertation, Boston: Boston University, 1957.
15. Ploghoft, M. H., "Do Reading Readiness Workbooks Promote Readiness?" *Elementary English,* XXXVI (October, 1959), pp. 424-426.
16. Schramm, W., Lyle, J., and Parker, E., "Television in the Lives of Our Children," Palo Alto: Stanford University Press, 1961.

640.

# 3. Learning to Read Words: An Experiment in Visual Discrimination

ETHEL M. KING
University of Alberta at Calgary

LEARNING to read requires that specific verbal responses be associated with specific visual stimuli. A reader must learn to perceive likenesses and differences in visual symbols. In addition, he must learn to associate the visual form, the sound, and the meaning of word stimuli.

An examination of current practices and materials for teaching reading indicated that visual discrimination is often taught more as a discrete skill rather than as an integral part of reading. Children may not be receiving enough direction or



may not be guided far enough in their thinking to receive maximum value from visual discrimination matching exercises for the transition to identifying words in reading.

Learning to read may be facilitated not only by the type of assistance given in applying visual discrimination skills but also by the specific method used in presenting stimuli. Typically, the simultaneous method of presenting the stimulus and response choices at the same time is used in visual discrimination exercises. If the stimulus were removed the child would be required to recall the particular response elicited by the stimulus. Knowing that he will be required to recall the response for the purpose of matching, the reader might be more attentive while the stimulus is being presented. Therefore, this successive method of presentation might be better preparation for learning to attend to and recognize words when they are encountered on subsequent occasions.

Modifications in visual discrimination training involving the type of stimulus, the meaning of the stimulus, and the mode of presentation might provide for a more effective transition to identifying words in reading.

## Problem

The main purpose of this study with nonreading kindergarten children was to determine the effects of visual discrimination training with different types of stimulus materials and different methods of stimulus presentation on performance in a transfer task consisting of learning to read a list of words. The specific questions were:

1. Does a set to respond to words as meaningful symbols in visual discrimination training enhance performance on learning to read a word list compared to visual discrimination training with word stimuli that have no meaning?
2. In visual discrimination training, are individual letters, or are whole words better to prepare children for a word recognition task that includes the same letters and words that were used in training?
3. In visual discrimination training, is simultaneous or successive presentation of stimuli more effective preparation for subsequent performance on learning to read a word list?

## Related Studies

An investigation of the related research indicated: (1) that visual discrimination training, matching the same words that are to be learned in a vocabulary list, is more effective than training matching different words or geometric figures,[1] (2) that visual discrimination training with relevant letters as parts of the total word stimulus tends to be more effective than with the letters presented singly,[2] (3) that matching in successive presentations, although more difficult than in simultaneous presentations, appears to be more highly related to reading achievement for first grade children,[3] (4) that there seems to be no information on the effects of children responding to words as meaningful symbols in visual discrimination matching as a preparation for learning to read words, and (5) that beginning kindergarten children have little or no difficulty matching geometric figures or pictures.[4]

## Design of the Study

The experiment was planned in two main parts: training and transfer task.

Six groups were designated by the method of presentation and the type of stimuli used in training. Five of the groups were trained using the successive method of presentations (Su); one with the simultaneous method of presentations (Si). Different types of stimuli were used: words, words and pictures, letters, and geometric figures. The words used for the same word groups (SW-Su and SW-Si) were the words to be learned in the reading task: hand, coat, girl, and

[1]Siegmar Muehl, "The Effects of Visual Discrimination Pretraining on Learning to Read a Vocabulary List in Kindergarten Children." *Journal of Educational Psychology*, 51:4, August, 1960, pp. 217-221.

[2]Siegmar Muehl, "The Effects of Visual Discrimination Pretraining with Word and Letter Stimuli on Learning to Read a Word List in Kindergarten Children." *Journal of Educational Psychology*, 52:4, August, 1961, pp. 215-221 and Carolyn K. Staats, Arthur W. Staats, and Richard E. Schutz, "The Effects of Discrimination Pretraining on Textual Behavior." *Journal of Educational Psychology*, 53:1, February, 1962, pp. 32-37.

[3]Donald D. Durrell *et. al.*, "First Grade Reading Success Study: A Summary." *Journal of Education*, Boston University School of Education, 140:3, February, 1958.

[4]Alice Lewis, "An Inventory of the Auditory and Visual Discrimination Abilities of Beginning Kindergarten Children." Unpublished doctoral thesis, State University of Iowa, 1959.

shoe. For the different word groups (DW-Su and DMW-Su) the words were different from those in the reading task: nest, cake, ring, and duck. In addition to the printed words, the different meaningful word group was also provided with an appropriate picture and auditory stimuli produced by the experimenter saying the words. The same letter group (SL-Su) matched letters appearing in the words used in the reading task: *h, a, n, d, c, o, a, t, g, i, r, l, s, h, o,* and *e*. Geometric figures used for the control group (GC-Su) were four hexagons differing only in internal detail.

Specially designed books were constructed for the experiment. All subjects received practice in a common training familiarization book to provide a warm-up for either of the two methods of presentation used. The stimuli were simple geometric figures: a triangle, a cross, a circle, and a square. Then each of the six groups received different training in separate books. In the training books the stimulus appeared under the acetate covering of the main page. Attached to the appropriate page, according to the method of presentation, were four response choices in hinged, acetate pockets. In all the training and training-familiarization books four response choices, one of which matched the stimulus, were presented. In each presentation the four response choices were the four stimuli selected for training the group to which the subject had been assigned. When the subject lifted the correct response card a red star appeared underneath. The common transfer task book provided for paired-associate presentations of words and pictures. Subjects learned to read four words: hand, coat, shoe, and girl.

Three specific comparisons were made: different meaningful words: successive presentation and different words: successive presentation (DMS-Su and DW-Su), same letter: successive presentation and same word: successive presentation (SL-Su and SW-Su), and same word: successive presentation and same word: simultaneous presentation (SW-Su and SW-Si.) In addition, an overall comparison was made. The control group which matched geometric figures (GC-Su) acted as a control for all comparisons.

Within each group subjects were further divided into two levels, upper and lower, on the basis of the total score in training. The data were analyzed by a Type III analysis of variance for correct responses in training and correct responses, omissions, and errors in the transfer task for each of the three specific comparisons and for the overall comparison.

## Subjects

The subjects were kindergarten children from the public schools of Iowa City, Iowa. The mean age was 66.33 months. Each of the six groups was comprised of twenty-three subjects assigned in a rotating order.

MEAN NUMBER OF CORRECT RESPONSES AND STANDARD DEVIATIONS FOR ALL GROUPS
(combined over trial blocks and levels)

| Group | Training | | Transfer Task | |
|---|---|---|---|---|
| | mean | s.d. | mean | s.d. |
| DMW-Su | 5.32 | 1.94 | 4.65 | 1.90 |
| DW-Su | 5.82 | 1.60 | 3.83 | 2.29 |
| SL-Su | 6.86 | 1.20 | 4.43 | 2.02 |
| SW-Su | 6.30 | 1.23 | 3.75 | 1.93 |
| SW-Si | 7.17 | 1.27 | 3.30 | 2.01 |
| GC-Su | 5.66 | 1.53 | 3.55 | 1.82 |

## Results

In the first comparison (DMW-Su and DW-Su and GC-Su) the results indicated that Group DMW-Su performed significantly better on the transfer task than Group DW-Su ($p<.01$) or Group GC-Su ($p<.001$). The difference was not significant between Groups DW-Su and GC-Su. In training there were no significant difference in correct responses among the groups.

The transfer task results for the second comparison (SL-Su and SW-Su and GC-Su) indicated that Group SL-Su tended to be superior to Groups SW-Su and GC-Su but the differences were not significant ($p<.1$). In training significant differences were found between all three pairs of groups ($p<.001$). Letter matching was easiest.

No significant differences on the transfer task were found among groups in the third comparison (SW-Su and SW-Si and GC-Su). The training results indicated

642.

that successive presentations were significantly more difficult than simultaneous presentations with word stimuli ($p<.001$).

When all groups were compared on the transfer task, DMW-Su was significantly superior to all groups except Group SL-Su. The latter group performed significantly better than Groups SW-Su, SW-Si and GC-Su. Matching different meaningful words was the most difficult kind of training.

## Discussion

The superiority of visual discrimination training with meaningful word forms over word forms with no meaning may be attributed to one or more of the following factors: (1) training was provided in acquiring a set of discriminating responses which included verbal labels, (2) training was provided in applying verbal labels consistently, and (3) training was provided in responding to word stimuli in a threefold manner similar to that required in learning to read: the association of the visual form, sound, and meaning.

Visual discrimination matching all of the single letters which were constituents of the words to be learned later in a reading task tended to be better training than matching the same words. Apparent inconsistencies in the results of this study with two previous studies may be due to the response choices presented to the relevant letter group. The present study was unique in providing training in the acquisition of a set of observing responses to discriminate single letters from among the other letters of the word which was used later in the reading task. The findings tend to support the hypothesis that the letter is the unit of learning to read.

Matching words in simultaneous presentations was easier than in successive presentations but this difference did not affect performance on the transfer task. The findings suggested either that successive presentation did not result in more careful attention to the words, or the words were highly discriminable from the beginning. An analysis of omissions early in the transfer task indicated that the failure to show facilitation from discrimination training with the same words may have resulted from interference. Subjects in Groups SW-Si and SW-Su were required to shift response modality while the stimuli remained the same.

## Implications

Certain findings suggest practical implications for using reading materials more efficiently and for teaching visual discrimination more effectively. Pre-reading and beginning reading programs should be modified to include discrimination learning with the easier task of matching relevant single letters preceding the difficult but effective training of discriminating meaningful words through the association of the visual form, sound, and meaning.

This study has not only practical implications but also stimulates further questions on theories of learning to read. Important among these questions are the stimulus characteristics of words with relationship to their discriminability and the response characteristics of words in terms of ease of pronunciation and meanful associations.

643.

208.

## 9. Auditory- and Visual-Perceptual Training

530.

MARGARET HELEN LAPRAY
and RAMON ROSS
San Diego State College

DURING THE PAST three years we have tried to find out how effective various programs of auditory and visual-perceptual training are in helping the young child learn to read. Our first efforts at visual training were ignited by studying the work of Kephart, Getman, Delacato, and others. We were intrigued by what they had to say concerning the training of visual skills and the linkage they drew between visual training and improved school achievement.

Would these programs of visual training, we asked ourselves, help the first-grade child who is doing badly in reading?

### A Study of Reading and Visual Perception

To answer this question, we picked out sixty first graders with Jastak Wide Range reading scores and Bender Gestalt perception scores in the bottom quartile of their classes. These first graders were divided into four groups.

Group I received modified visual training, which consisted of such activities as matching simple shapes, completing incomplete drawings of geometric designs, replacing pieces on a perception board, and working with a simplified writing system using pictographs. Large-muscle activities such as walking a balance beam, bowling, and cross-patterned creeping and walking were also introduced and used at each class meeting by this group.

For a second group we provided extra work with simple reading materials. They worked with the alphabet, learned basic-sight words, practiced hearing initial consonants, and made experience charts and stories.

Group III, which we set up to test the Hawthorne effect of instruction, learned songs and plays, colored pictures, made puppets, and listened to folk songs and stories.

Group IV was tested, received no instruction, and was re-tested at the conclusion of the project. This group was set up to determine the effects of maturation, history, testing, and the interactions of these factors.

### The School and its Patrons

Our work was carried on in a lower-class school in Southwest San Diego. This part of town has many Mexican-Americans, Negroes, Samoans, and Puerto-Ricans. Fathers are enlisted men in the Navy, work as service personnel in the hotels and restaurants of San Diego, or are employed in the shops of our large space industries. About half the mothers work outside the home.

Since we did not include children with severe emotional problems or limited intelligence, the groups were not hampered by those individuals who demand all of a teacher's time and energy. And, too, we were aided by the fact that all children were volunteers. Their parents were told about the study and invited to enroll their children. No child participated unwillingly.

We met with these children twice each week for forty minutes' instruction. Our work lasted from October through February.

### What Did We Find?

At the end of the instructional period, we again tested these children on the Bender Gestalt and the Jastak Wide Range Reading Test. We found three things, all of which were significant statistically.

First, time helped all children draw better Benders and read more words on the Jastak. What went on in that time, since we are referring here to the

644.

control groups, was regular classroom instruction. But at any rate, we did not have a hand in the improvement. Children improved without any special help from us.

Second, the group that had special help with classroom-reading materials did better on the post-test Jastak than did the experimental, extensive visual-training group or the two control groups.

Third, the visual-training group drew better post-test Benders than did the classroom group or either of the control groups. It looks as if extensive exposure to visual-training activities does permit the child to improve his drawings.

### What Does This Mean?

We're not quite sure what this means. A number of researchers, such as Jean Goins, Donald Durrell, and Newell Kephart, have concluded that visual-perceptual skills are related to early reading success. Of course, they are not necessarily in agreement as to what that skill might be.

Kephart and Getman have concluded that visual skills can be trained and that better reading will follow from that training.

On the basis of our work, we must conclude that, for our children at least, perceptual skills can be trained. However, it looks as if that training may be of little use to the child in reading if it only helps him draw better Benders. And, we have no evidence at this time that drawing better Benders will result in better reading for the typical poor reader with faulty perceptual skills. While it is possible that there exists a small group of poor readers with such damaged or immature perceptual apparatus that the visual training we provided is necessary, we apparently did not have any of those individuals in our study.

### Recommended Visual-Perceptual Training

First, we would urge that primary emphasis with readiness materials be placed on the stuff of reading-letters, groups of letters, words, and groups of words. The tracing, matching, and naming that is to be done should be done with the symbolic elements which make up our written code.

Our second recommendation is that the physical activities, such as creeping, cross-patterned walking, eye-hand coordination, and the like, be placed in the physical-education part of the elementary-school program. Teachers report to us that primary children who are clumsy and maladroit also do badly in their school work. While their clumsiness and awkward behaviors are only one aspect of a greater syndrome of learning difficulties, in our concern for the total child we should attend to his physical coordination and well-being. And children enjoy these activities and concentrate on doing them well. Teachers tell us that there were better balance and coordination among their pupils as a result of our work with them. While this ability may not be directly related to reading; body grace and poise are desirable; and we should do what we can to help children develop these physical characteristics.

Our third recommendation has to do with further study of the relationships between visual perception and reading. It has become conventional for researchers to include their remarks about a piece of research by saying that further study is needed. In this case further study *is* needed. But it must be a very special kind of study. In the first place, we need to be specific about what we mean when we say "visual perception"; and we need to be specific about what we mean when we say "reading." Visual perception is not a singular ability but a cluster of abilities. The same can be said for reading. What we must do from here on out is to begin the study of what the inter- and intra-relationships are between and among these preceptual and reading skills. We must study time, materials, individuals, and the interactions thereof if we are to advance our knowledge. Let us give an illustration. How much time should the child spend each day completing incomplete letters? Or matching alphabetic forms? Or on creeping and cross-patterned walking? We simply don't know. Is five minutes' instruction as good as fifteen? If it is, why spend fifteen? Published research doesn't answer this question.

645.

## Visual Perception and Auditory Perception

In the last paragraph we suggested that the multiple components of visual perception needed to be studied. Our next remarks will sound paradoxical in the light of that suggestion. For we are proposing that it is difficult, if not impossible, to separate visual perception from auditory perception. During our study, we came to the conclusion that at least part of these children's difficulties started with their inability to hear sounds and attach proper meanings to those sounds. That is auditory perception Every time we gave directions; every time we asked a youngster to make a hook-up between a letter and a sound, we were dealing with a partnership between auditory and visual perception.

As a result of this awareness, we have set out to develop measures for assessing how accurately a child perceives sounds. In our tests, we have tried to measure such things as the ability to discriminate between like and different sounds, the ability to blend sounds into meaningful units, the ability to identify likenesses and differences in inflectional patterns, and the ability to reproduce similar inflectional and intonational patterns.

We have found out a few things from this test. First, and not surprising, we found that children from middle- and upper-class schools do better on the test than do those from lower-class schools. Second, we found that children who do badly on the auditory-perception test tend to do poorly in basic-reading skills. Third, and somewhat surprising, is a very low correlation between this test and an intelligence test. Whatever it is we are measuring—and we have chosen to call it auditory perception—it does not correlate well with intelligence. This discovery pleases us, for it suggests that auditory perception and intelligence are two different facets of the central-processing system.

We have begun to develop materials to help improve auditory perception. We use tapes in which we ask the child to indicate when beginning, medial, and end sounds are alike or different. We speak words very slowly and ask the child to figure out the word which is being spoken and say it back to us in proper rhythm. Working for accurate imitation of a particular speech melody, we use such machines as the Language Master and ask children to repeat sentences and phrases.

How well these activities are paying off remains to be seen. We would suggest, however, as a result of our work, that the classroom teacher who wishes to do a better job in developing readiness for reading follow these general prescriptions:

1. Work with symbolic materials closely related to reading—letters, letter names, and letter shapes.
2. Help children build their auditory perception and listening skills. Children do not learn to listen without our help. Small chunks of sound patterns which the child repeats or responds to are to be used in beginning instruction. Gradually, the complexity of skills in auditory perception may be increased.
3. Visual-perception activities which are most effective in building reading readiness seem to be those which are most closely related to reading. There may be a small, hard core of children with gross immaturities in perception who need work in general shape and picture-matching activities and in the creeping and cross-patterned walking activities which have been recommended so often of late. However, our work has not located a sufficient number of these children for us to go on record as advocating these activities for the majority of primary children who are slow in learning to read.

646.

209



# 5. Identification of Visual Perceptual Errors in Young Children

MYRENE MCANINCH
University of Washington

DESPITE THE theoretical evolution that has taken place in the field of perception during the past two centuries, no one hypothesis has been accepted as *the* answer to the questions relating to the perceptual process. How does the human organism perceive? Why do individuals differ in their perceptions of an object? Although many facets of the perceptual process remain a mystery, the increasing number of children with reading problems, in which visual perceptual errors are prominent, demands immediate attention.

Although reading requires multiple skills, adequate and accurate visual perception is a primary factor for successful performance. It is by means of visual perception that the reader is able to discriminate between like and unlike symbols, maintain constancy of letter and word patterns, relate parts of the word to the total configuration, differentiate between figure and ground elements on a written page, organize symbols spatially, and associate meaning with the printed symbol *(15)*.

*Form Discrimination* refers to the process of differentiation of likenesses and differences of forms according to their contours and shapes. It is possible to differentiate and separate elements of the physical world because each object is perceived as possessing a specific appearance and characteristic. In order to differentiate between these forms, the individual must make comparisons based upon his past and present sensory experiences and, then, select elements common to the several items under consideration *(26)*. From this information, the criterial attributes of the form are selected so that the object is recognized as being like "this" and not like "that." In this way, the individual constructs a plan or framework into which he can fit any perceptual situation. He uses this plan as a technique for stabilizing things within his environment.



Errors in the identification of words may result if the child fails to develop adequate form-discrimination skill. Such a child may evidence difficulty in differentiating between the letters c-e-o-a, m-n, h-n, or i-t-l since these forms contain both elements of similarity and dissimilarity. If inappropriate criterial elements are selected, the child may be unable to make highly refined discriminations and, thus, confuse such words as *cat, oat,* and *eat*. Since word identification also involves the association of sound with the printed symbol, auditory form-discrimination problems may add to the child's confusion. He may be unable to perceive differences between the sounds found in the short vowels, e.g., *pin, pen,* and *pan,* or to relate these sounds to the correct letter. Therefore, not only reading and spelling but behavioral errors may be produced by failure to discriminate between like and unlike elements in the environment.

*Form constancy* involves the process by which an individual stabilizes a form perceptually *(28)*. Constancy implies the perceptual skill of (1) discriminating between a particular form and other patterns, (2) selection of critical elements of that configuration, and (3) identification of that form whether viewed in a different spatial position, size, or at a later time. Once this function has been accomplished, other changes in unessential characteristics are not seen as having affected the form as a whole. The object still retains its phenomenal identity although it may be seen large at one time and small at another, brightly colored or grayed, in an upright position or tilted on edge. By means of consistent identification of a given form, the child develops recognition of the letter "c" regardless of whether it is presented in capital form or in lower case in either the initial, medial, or final position of a word. However, if constancy is not maintained, the child has no means of identifying the symbols within his environment since the stimulus-input appears to be in a constant state of change.

*Figure-ground differentiation* implies the on-going process which determines the separation of figure from ground regardless of whether the figure is presented on a plain or textured background or in an embedded or overlapping situation. This kind of differentiation involves the ability to select the pattern which is treated as the figure and to hold this configuration against a tendency for some other pattern to become the prime focus *(26)*. Thus, certain kinds of clues become pertinent to the separation of figure: (1) the figure having form whereas the ground is relatively formless; (2) the figure having thing-like qualities whereas the ground appears as unstructured and unformed material; (3) the figure appearing both brighter in color and closer to the observer whereas the ground extends unbroken behind the figure and is less brightly saturated *(25)*.

The ability to differentiate figure from ground enables the child to attend to relevant material on the page, separate the important figures in a picture from the background details of a house, hills, or sky, and discover the boundaries of forms within the environment. If the child is unable to isolate the figure from the ground or the relevant from the irrelevant, he may tend to focus only on details, such as the black lines dividing the workbook page, and fail to attend to the simple paragraphs contained within each box.

*Part-whole relationship* refers to the parts of a figure to the whole of which it is composed. Research indicates that perception of the whole form is not entirely divorced from perception of the separate parts. It is attention to the parts as related to the whole which leads to the stabilization of the configuration *(28)*. So, although the whole is more than the summation or collection of the parts, it is through observation of each part, the combining of the various aspects of the total which are not in all respects identical, that one gains an impression of the total figure. In this way, the whole configuration has a particular identity which differs from that of any of its parts; and although the parts in isolation may contain meaning per se, this meaning changes when the parts are related to the whole figure *(1)*.

The ability to comprehend meaning from the printed symbols may be affected

647.

by the child's inability to associate the separate elements of the stimulus to the larger configuration. The child may experience difficulty in attaining concepts from his reading since the meaning of a sentence is derived from a relationship between the individual words.

*Spatial organization* is the process of recognizing that forms having the same base are identical versus those forms which involve ..rsal or rotation of base. Objects are located in space as a result of the integration of a series of visual impressions of different parts of the field. Each point of attention becomes combined to form a view not only of the configuration itself but of the pattern in relation to the total field of vision *(26)*. Comparison of the size of the object, the relative size of the retinal image of different parts of the field, texture gradiation in relation to distance, and relative brightness or clarity of color are recognized as cues used by the human animal to establish necessary spatial relationships. It is by means of such cues that the form is inferred as being near, far, left, right or as having depth and solidarity *(30)*.

If the child is unable to determine these spatial relationships, forms tend to assume an innocuous position in the environment. Certain children are unable to identify, or even recognize, a (1) backward or forward appearance, (2) left or right sidedness, or (3) up and/or down quality of the focal form. Any disturbance in the child's spatial orientation may result in confusion when attempting to discriminate between such letters as b-d, g-p-q, and m-w. Words taken out of context, too, may be perceived as reversed (e.g., *saw* for *was* and *no* for *on)* when no other cues are provided for orientation. Both reading and spelling may be affected by the reversal of letters and/or words or by the rotation of letter order. Inability to maintain spatial organization of the parts of a word in correct sequence and/or letter order of that word produces not a concept but a meaningless jumble of images.

*Meaningful Interpretation* implies the process of relating the visual form to its verbal symbol and the "deriving" of information from the recognized visual configuration. The relation of meaning to the visual form transpires as a result of an integration of past and present sensory data, all of which serve as a means of interpreting the meaning of the form or object in the external world *(29)*. By means of the information received from past and present sensory data and by relating and integrating this information, the perceptual process provides the basis for conceptualization, making judgments, and anticipating behavior.

## Test Instruments

The perception of relationships is the primary requisite to concept attainment which, in turn, is the foundation for development of mental ability. Since the perceptual system provides the means by which information about the external world is collected and organized, it appears evident that perception, per se, is one of the most important variables determining the capability for intellectual development. It is for this reason that intelligence tests, as well as reading-readiness ability scales, rely heavily on visual perceptual items. Tasks involving form discrimination, visual-motor coordination, meaningful interpretation of visual stimuli, and spatial relations are part of tests such as the *Wechsler Intelligence Scale for Children, Pitner Non-Language Test, Chicago Non-Verbal Examination, Monroe Reading Aptitude Tests* and *Gates Reading Readiness Tests*. Test profiles, which indicate variations in performance on subtests or between the ability to deal with verbal versus performance items, may be used as an indication for further study and investigation. In general, intelligence and ability-scale profiles do not provide specific information regarding the type or degree of perceptual disturbance and/or its relationship to skill in reading.

Other appraisal techniques are available to measure the function of specific areas of visual perception. These perceptual tests can be and should be broken down into the categories or areas of functioning which they purport to measure. Instruments measuring ability to form part-whole relationships are (1) *Gestalt Completion Test (27)*, (2) *Bender Visual Motor Gestalt Test (4)*,

(3) *Picture Integration Test (8)*, and (4) the *Goldstein Scheerer Cube Test (16)*. All four of these tests evaluate the subject's ability to integrate the configuration as a whole and to perceive the "gestalt" of the pattern.

Other instruments measure visual memory of design, such as, (1) *Benton Visual Retention Test (5)*, (2) *Ellis Visual Memory Test (10)*, and the (3) *Kendall-Graham Memory for Designs Test (19)*. These tests evaluate the individual's ability to perceive relationships between the parts and the total design as well as his retention of this organization over a specified time period. It is difficult in these tests, however, to separate what role memory plays in the child's inability to organize the pattern versus perceptual deviation.

Test instruments to evaluate figure-ground disturbances include (1) *Strauss and Werner Figure-Ground Discrimination Tests (30)*, (2) Dolphin and Cruickshank test for figure-ground disturbances in cerebral-palsy children *(7)*, (3) Ghent study of developmental level and degree of difficulty encountered in separating figure from ground *(13)*, and (4) Elkind and Scott *Decentering of Perception Test* (9).

Form discrimination is a basic consideration in the design of (1) *Preschool Inventory (18)*, (2) Birch and Lefford measure of skill in discriminating forms and developmental stages of sensory functioning *(6)*, (3) Ghent investigation of the effect of orientation on identification of form *(14)*, (4) *The Minnesota Preschool Scale (17)*, and (5) *Pictorial Test of Intelligence (11)*. All of these tests evaluate the subject's ability to recognize objects of varying levels of abstraction and complexity and to discriminate between like and unlike forms.

*The Weigl - Goldstein - Sheerer Color Form Sorting Test*, although not truly a test of form discrimination, involves the subject's awareness and organization of elements related to form identification *(16)*. The principle of identifying and isolating form for purposes of sorting is an important factor underlying success when the child is later faced with discrimination of abstract symbols such as letters and words.

The *Constancy Effect Test*, developed by Ardis and Fraser, is one of the few attempts to measure an individual's ability to identify a pattern regardless of changes in color, size, or spatial position in the given form (3). The instrument was designed to investigate the effect of personality factors on one's ability to maintain form constancy. The results of the study indicated a relationship between personality type and either increased or reduced constancy in attending to forms within the environment.

The child's ability to organize stimuli presented in different spatial dimensions is investigated by (1) the Nelson and Bartley studies of developmental levels and ability to match two- and three-dimensional forms *(20, 21)*, (2) Milgram and Furth *Positional Reversal versus Dimensional Reversal Test (22)*, (3) *Goldstein Sheerer Stick Test (16)*, and (4) *Raven Progressive Matrices (23)*. These instruments evaluate the child's ability to identify, match, select the correct pattern, and reproduce forms presented in either two or three dimensions.

One of the most complete and standardized measures of visual perceptual performance, which provides norms for perceptual levels of children from age 3-9, is the Frostig Test. The *Frostig Developmental Test of Visual Perception (12)* includes items to appraise: (1) skill in figure-ground discrimination, (2) eye-motor coordination, (3) form constancy, (4) positions in space, and (5) spatial relationships.

Although instruments are available to evaluate the function of visual perception, many of these tests are not standardized and, thus, fail to provide an adequate population with which to compare a particular child's perceptual skill. Few of these instruments consider more than one specific area of perception, neglecting other related and important aspects of function. Yet, other than a neuro-physiological examination which might reveal some brain pathology to be the cause of perceptual dysfunction, these tests do provide some specific information about the categories of visual perceptual function. It must be remembered, however, that there is inadequate evidence available to substantiate the hypothesis that the

649.

child's performance on a paper and pencil test such as the Frostig or the Bender, which are composed of geometric or abstract configurations, can be used as a predictor of the existence and/or degree of reading disability that may be produced by any perceptual dysfunction.

Thus, the difficulty in studying perception lies not only within the vast theoretical framework but in the multiplicity of factors that may be involved in impaired performance. It becomes apparent that the perceptual disturbances noted in elementary children may not only have many causes but may act as indicators of other problems (i.e., emotional disturbance, experiential deprivation, organic involvement, or maturational lag). Lack of adequate perceptual skills may not be a causal factor in a reading disorder but rather a symptom. Paradoxically too, although visual perceptual errors may affect reading ability, a child may evidence perceptual impairment in certain areas and yet be able to read. Certain perceptual disturbances may be related to specific types of reading errors; but, on the basis of the tests presently available, perceptual dysfunction is not necessarily causally related to a reading disorder. Results of tests, however, do identify areas in which the child is experiencing difficulty in handling visual sensory data and may indicate possible areas of difficulty in the reading process. No one diagnosis or solution is possible, though, since reading is a complex process involving many factors of which visual perception is but one.

Identification of visual perceptual dysfunction is only the initial stage of the diagnostic process. It is necessary to combine and/or correlate the information derived from the perceptual tests with analysis of reading-score errors, omission or addition of word parts, confusion of similar word forms, inconsistent word recogtion, and inability to follow perceptual sequences. In addition, information gleaned from the teacher's observations of how the child handles other situations involving visually oriented materials can be of value in providing insight into the nature of the problem, related symptoms, and possible causative factors. It is from an integration of information concerning variations in the child's performance that a diagnosis is derived. The diagnosis itself is only as good as its ability to provide the necessary information and/or description of the child's behavior. Too often a shop-worn label is used: one that tells little about the behavior of the child, little about the *individual* child, who may deviate as radically from the norm expectation of a given group as he does from the patterns of normalcy per se. An effective, meaningful, descriptive diagnosis, then, provides the basis for structuring the objectives and learning experiences of the remedial and/or preventive educational program. The process of evaluation is continuous—requiring continual analysis and interpretation of changes in behavior, identification of perceptual errors in the reading program, inclusion of additional learning experiences, and modification of prognosis pertaining to the visual perceptual and/or reading disorder.

In conclusion, it becomes apparent that although instruments are available for the identification of visual perceptual errors, these tests, at best, provide only a gross measure of perceptual dysfunction and, thus, afford highly unreliable results. Further, only minimal information has been compiled as to what the child responds to visually when presented with a word. The question arises as to whether the testing instruments measure skills relevant to the reading process. The need, therefore, exists for further investigation of 1) the reliability of test results as compared with observation of the child's performance and with information gleaned from other standardized instruments; 2) controlled examination of differences in reading performance between Sample A, representing those individuals who evidence visual-perception dysfunction, and Sample B, defined as a nonperceptually disturbed group; and 3) investigation of the sequence of response to a visual symbol (i.e., global configuration, recognition of letter parts, specific cues within total configuration) to establish which categories of the visual perceptual process are necessary skills for reading to occur. Thus, much remains to be done before more accurate identification of visual perceptual errors and analysis of their causal relationship, if any, to

decreased reading proficiency can be made.

## REFERENCES


1. Allport, Floyd H. *Theories of Perception and the Concept of Structure.* New York: John Wiley and Sons, Inc., 1955.
2. Anastasi, Anne. *Psychological Testing.* New York: The Macmillan Company, 1954.
3. Ardis, Amorj and Fraser, Elizabeth. "Personality and Perception: The Constancy Effect and Introversion," *British Journal of Psychology,* 48 (February, 1957), 48-54.
4. Bender, Lauretta. *A Visual Motor Gestalt Test and Its Clinical Use.* New York: Orthopsychiatric Association, 1938.
5. Benton, Arthur L. *Fourth Mental Measurements Yearbook.* Highland Park: Gryphon Press, 1953.
6. Birch, Herbert G. and Lefford, Arthur. "Intersensory Development in Children," *Monographs of the Society for Research in Child Development,* 28 (May, 1963), 3-48.
7. Cruickshank, William and Dolphin, Jane. "Figure-Background Relationships in Children With Cerebral Palsy," *Journal of Clinical Psychology,* 7 (July, 1951), 228-231.
8. Elkind, David; Koegler, Ronald R.; and Go, Elsie. "Studies in Perceptual Development: II, Part-Whole Perception," *Child Development,* 35 (March, 1964), 81-90.
9. ———— and Scott, Lee. "Studies in Perceptual Development: I, The Decentering of Perception," *Child Development,* 33 (March, 1952), 619-630.
10. Ellis, Norman R. and Sloan, W. "Rotary Pursuit Performance as a Function of Mental Age," *Perceptual and Motor Skills,* 7 (March, 1957), 267-270.
11. French, Joseph L. *Sixth Mental Measurement Yearbook.* Highland Park, New Jersey: Gryphon Press, 1965.
12. Frostig, Marianne; Lefecer, D. Welty; and Whittlesey, John R. B. "A Developmental Test of Visual Perception for Evaluating Normal and Neurologically Handicapped Children," *Perceptual and Motor Skills,* 12 (June, 1961), 383-391.
13. Ghent, Lila. "Perception of Overlapping and Embedded Figures by Children of Different Ages," *American Journal of Psychology,* 69 (December, 1956), 575-587.
14. ———— "Form and Its Orientation: A Child's Eye View," *American Journal of Mental Deficiency,* 74 (June, 1961), 177-190.
15. Goins, Jean Turner. "Visual Perceptual Abilities and Early Reading Progress," Supplementary Educational Monographs, No. 87. Chicago: University of Chicago Press, 1958.
16. Golstein, Kurt and Scheerer, Martin. "Abstract and Concrete Behavior: An Experimental Study With Special Tests," *Psychological Monographs,* 53 (Spring, 1941), 1-149.
17. Goodenough, Florence L.; Maurer, Katherine M.; and Van Wagenen, M. J. *Sixth Mental Measurement Yearbook.* Highland Park, New Jersey: Gryphon Press, 1965.
18. Haeussermann, Else. "Evaluating the Developmental Level of Cerebral Palsy Preschool Children," *Journal of Genetic Psychology,* 80 (March, 1952), 3-23.
19. Kendall, Barbara S. and Grahm, Frances K. "Further Standardization of the Memory-For-Designs Test on Children and Adults," *Journal of Consulting Psychology,* 12 (September, 1948), 349-355.
20. Nelson, Thomas N. "A Comparing Visual and Visual Motor Perceptions of Unimpaired, Defective, and Spastic Cerebral Palsied Children," *Journal of Genetic Psychology,* 101 (December, 1962), 299-332.
21. ———— and Bartley, S. Howard. "Various Factors Playing a Role in Children's Response to Flat Copy," *Journal of Genetic Psychology,* 100 (June, 1962), 289-308.
22. Milgram, Norman A. and Furth, Hans G. "Positional Reversal Versus Dimensional Reversal in Normal and Retarded Children," *Child Development,* 35 (September, 1964), 701-708.
23. Raven, J. C. *Guide to Using the Colored Progressive Matrices.* Dumfries, Scotland: William Grieve and Sons, 1960.
24. Russell, David. *Children's Thinking.* New York: Ginn and Company, 1956.
25. Solly, Charles M. and Murphy, Gardner. *Development of the Perceptual World,* New York: Basic Books, 1960.
26. Strauss, Alfred H. and Lehtinen, Laura E. *Psychopathology and Education of the Brain-Injured Child.* New York: Grune and Stratton, 1947.
27. Street, Roy F. *A Gestalt Completion Test.* New York: Bureau of Publications, Teachers College, Columbia University, 1931.
28. Vernon, Magdalen. *A Further Study of Visual Perception.* Cambridge: Cambridge University Press, 1952.
29. ————. *Psychology of Perception.* Cambridge: Cambridge University Press, 1962.
30. Werner, Heinz and Strauss, Alfred H. "Pathology of Figure-Background Relation in the Child," *Journal of Abnormal Social Psychology,* 36 (April, 1941), 236-248.
31. Wood, Louise and Shulman, Edythe. "The Ellis Visual Designs Test," *Journal of Educational Psychology,* 31 (November, 1940), 591-602.
32. Wyburn, G. M.; Pickford, R. W.; and Hirst, R. J. *Human Sense and Perception.* London: Oliver and Boyd, 1964.


651.

210.



talking about the placement of reading readiness in the kindergarten. The use of the term, however, seems to be applied exclusively to that of reading readiness workbooks. Since workbooks are written by authorities in reading, they carry considerable prestige. Some educators tend to forget that these authorities do not believe that the use of workbooks constitutes the entire readiness program or even a major part of it. In their writings many skills besides those developed in the workbooks are discussed.

The ability to distinguish between likenesses and differences, both auditory and visual, are stressed in the workbooks because pencil and paper lend themselves to this type of work. Some pictures used for the development of ability to tell a story in sequences and for interpretation are also included in the workbooks, but these activities must be carried on with the teacher. The child can work alone on the exercises for likenesses and differences so this type of activity is useful for seatwork. This type of activity therefore assumes undue importance among the other types of readiness activities.

### The First Study

In an effort to gain some idea of the importance of some language abilities in reading readiness, two studies were made. The first involved the relationship of children's maturity in the use of various types of sentence structure to their scores on the Lee Clark Reading Readiness Test. This study was carried on with a total of eighty-three children in four kindergartens in a city school district. The children were from families representing a variety of socio-economic levels. Almost ten per cent of the children spoke another language in the home.

*Collection of the data.* The children's maturity in the use of sentence structure was measured by classifying their oral expression according to four levels. Incomplete sentences were classified as group one. Complete sentences were classified into three additional groups. Simple sentences including those strung together by means of "and" or "and then" were placed in group two. Sentences including compound subjects, compound predicates, or

Vol. 7, 62

## 4. The Relation of Reading Readiness to Certain Language Factors

IDA E. MORRISON

Increasingly principals and teachers are

652.

121.

both made up the third group. Complex sentences, those with at least one main and one subordinate clause, were placed in the fourth category. Since sentences connected with "and" are commonly used by immature children, the true compound sentence was eliminated as a separate category, and these were classed along with the simple and run-on sentences.

The sharing period was chosen as the time for recording language, and the data were collected by means of a tape recorder. The teacher asked a maximum of three questions to encourage the children during participation. Each child had three opportunities to speak, and samples were secured to add up to at least a hundred words. The tape recordings were transcribed for analysis. The part of each child's contribution which included the largest number of complex sentences was used; the same procedure was used for compound subjects and predicates.

*Treatment of the data.* A weighted value was given to each type of sentence, incomplete, simple, compound, and complex. These weights were applied to the sentences found in the oral contributions in order to give each child a numerical score for level of sentence structure. Three judges scored each child's contributions and then compared their work for accuracy. When a difference was found, the sentence was re-evaluated by the three, and consensus was reached. The scores were then used for a correlation with the children's reading readiness scores. The Lee Clark Reading Readiness Test was chosen because it was simple to administer and also because it was the test used by the local school district.

*Findings.* The raw scores used to measure the children's levels of sentence structure were correlated with the raw scores on the reading readiness tests. The correlation coefficient was found to be .721. A separate correlation was made for weighted scores for the number and kinds of clauses. This coefficient was found to be .722.

## The Second Study

The ability to retell a story was another language ability chosen for study in regard to its relationship to the children's reading readiness scores. Forty-four children from two of the four classes used in the first study were selected for this part of the study.

*Collection of the data.* The story of Peter Rabbit was chosen because the sequence was not important to the story and would therefore not be of assistance to the child in helping him remember the various incidents in the story. The judges analyzed the story in order to find the total number of incidents and to record these so that each child's repetition of the story could be checked on a common scale. Thirty-three incidents were agreed upon.

The teacher read the story to the children every day or two for a total of nine times. She also encouraged the children to illustrate or dramatize the story each time it was reread. At the end of the nine repetitions, the teacher began recording the children's repetitions of the story on the tape recorder. Since this individual work took time, the teacher reread the story to each child individually just before she asked him to repeat it to her. Thus, the time interval between the last hearing of the story and its repetition was kept the same for each child.

*Findings.* When the children's taped stories had been transcribed and analyzed by the judges, it was found that one child had recalled thirty incidents of the possible thirty-three. The other scores followed a more or less normal curve down to that of several children who were unable to recall any of the story. These latter children were handicapped by their lack of English speaking background. The number of incidents was used as a raw score and was correlated with the reading readiness raw score for each child used in the first study. The correlation coefficient for this relationship was found to be .786.

*Findings for sequence.* Since the items on the key were listed in sequence, it was decided to number the responses to discover if the children tended to recall the incidents in their proper order. When this data were analyzed, it was found that nine children repeated the story in correct order. These children's scores varied from five incidents to twenty-five with the other scores scattered between them. Twenty-one children misplaced one incident, five children misplaced two, one child misplaced three, and three children misplaced five incidents. The remaining children failed to achieve a score. There seemed to be no relationship between high scores and correct sequence. In general, most of the children retold the story in very good sequence; only a few diverged from the correct order of events.

*Conclusions and recommendations.* A relatively high correlation was found between children's levels of usage in sentence structure and scores on reading readiness tests. An even higher correlation was found between children's reading readiness scores and their ability to recall a number of ideas or incidents when retelling a story. The ability to follow the sequence seemed to be high, regardless of the number of incidents recalled.

The level of these two factors in language development, therefore, seems to have a high relationship to children's reading readiness scores. It would seem that language development should be given a great deal of attention as part of the readiness program. Reliance on workbooks to the exclusion of language development seems to be of very dubious value.

653.

211.

# 4. Recent Research in Visual Discrimination: Significance for Beginning Reading

SIEGMAR MUEHL
University of Iowa and
ETHEL M. KING
University of Alberta at Calgary

434.

MANY SYSTEMS of beginning reading instruction use the so-called "sight-word" approach to introduce children to their first reading material. The children are presented with a basic set of words which they learn to read. Later these words provide the basis for formal instruction in word analysis skills including structural and phonic analyses.

Learning sight words is an association process. As such, certain general factors are known to affect the ease with which the association is learned. First, the responses to be learned must be available and readily discriminated from one another. Secondly, the stimuli to be associated with the responses must be discriminated so that recognition is consistent for each appearance of the same stimulus.

In teaching reading, we have been well aware of the importance of making reading responses readily available. This has been done by selecting beginning reading words that are of high frequency in children's speech. Unless children have culturally disadvantaged or culturally different backgrounds these words are available; at most, we need to provide some auditory discrimination training to sharpen discriminations among similar sounding words.

The stimuli or printed words in beginning reading present an entirely different problem. In the beginning these graphic patterns are not readily discriminable or consistently recognized. Assuming the beginning reader has the spoken responses available, he is faced with two learning tasks with respect to these graphic patterns. First, he must learn to discriminate among the visual symbols; second, he must learn to associate each of the graphic patterns with an appropriate spoken word.

This paper is concerned with the kinds of training that are most effective in helping children learn to discriminate among graphic patterns. Our purposes are twofold: to present an overview of the research bearing on this question of discrimination learning and to suggest implications for teaching which seem warranted on the basis of this research. We say, "suggest implications" advisedly, since the majority of the research cited will be experimental in nature. This means that it was carried out in highly controlled and artificial circumstances. For this approach we make no apology. This step in educational research is imperative in order to assess, unambiguously, the operation of certain factors in the learning process. However, this type of research can only be a beginning. Experimental research needs to be followed up with classroom studies to determine whether or not the manipulations and variables which produce significant effects in experimental situations will also produce differences in the classroom that are *practically* as well as statistically significant.

## Historical Development

Before we look at the recent research in discrimination learning, it would be

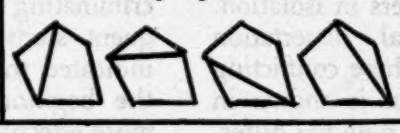
654.

useful to review briefly the history relating to the question of how children see words, particularly why whole words have been considered the child's "natural" unit of perception *(14)*. Several sources have contributed to this thinking. American educators writing in the 1850's opined that words are more easily remembered than letters because they are not such minute objects and because they are more meaningful. At the turn of the century, Huey *(6)* cited evidence from tachistoscopic research using adult subjects indicating that word "form" was the critical cue for perception. In 1922, Buswell's *(1)* studies of eye movements showed that the mature reader seemed to organize his reading perceptions by words and even phrases. Although the data from tachistoscopic and eye movement research could be used to support the "whole-word view," these same studies also showed that as the reading material became more difficult, or when young and inexperienced readers were used as subjects, discrimination of words proceeded mostly on a letter-by-letter basis. The historical clincher for the "whole word" approach, however, appears to be psychological theory, not experimental evidence. In 1924, Max Wertheimer, the Gestalt psychologist *(3)*, stated that the whole is greater than the sum of its parts, and that the form or grouping that is most natural is the one which involves the smallest interval. Since words are letter groupings set apart spatially from other words, this theory seemed to provide the answer to word perception.

## Recent Research

What does more recent research say about how children learn to discriminate visually among words? Our research with prereaders takes its beginning where Goins left off *(5)*. Goins' study was the first that made a systematic attempt to train first grade children in visual discrimination. The fact that the results of her tachistoscopic training with nonverbal type visual stimuli did not facilitate reading performance suggested the need for visual discrimination training with stimuli that are immediately relevant to learning to read; namely, printed words and letters themselves. Our first study *(11)* confirmed the specificity of transfer in the area of reading (Table 1). Three

TABLE 1
TYPE OF TASK AND ORDER

| First | | Second |
|---|---|---|
| Visual Discrimination Training (Matching) | | Reading Words |
| Groups | Materials | All groups |
| Same | boat, help, play, come | boat<br>help<br>play<br>come |
| Different | make, jump, work, find | |
| Control |  | |

groups were given visual discrimination training or matching practice with three types of material: words that appeared on a subsequent reading task, words that did not appear on the subsequent reading task, and geometric forms. The results on the reading test favored the first group that had practiced discriminating among the same words that appeared on the reading task. Since there was no difference between the geometric and different word group, the results indicated that what is learned in discrimination is very specific and that this learning transfers

655.

only when the words in the reading task are highly similar to those in discrimination training. These results raised the question: What specifically are the children attending to as they learn to discriminate among words? Is it the "form" or shape of the word as a whole, or is it individual letters within the word? A study designed to assess these factors *(12)* showed two interesting findings (Table 2). First, word shape or form did not seem to be an important cue to kindergarten children in discriminating among words. Specific letter differences between the words seemed to be the significant cue. Second, although discriminating letters in isolation was much easier than discriminating letters embedded in words, the isolated letter group did just as well on the reading test as did the groups that had discriminated the letters in the words. A similar study by Staats, Staats, and Schutz *(15)*, however, failed to confirm these findings. They found that visual discrimination training using the whole words was more effective than training with the letters in isolation. Professor King's doctoral dissertation *(7)* attempted to resolve these conflicting findings. Her study design is shown in Table 3. It is important to note the difference between the visual discrimination training group with different meaningful words and the other groups. In this group, the children saw a picture of the word when the word was first presented and, in addition, the word was pronounced. The results showed two groups clearly superior in their word reading performance: the different meaningful word group and the relevant letter matching groups. In visual discrimination training, the letter matching task was the easiest of all; the different meaningful word most difficult. What skills transferred from these two different types of training? The different meaningful word group presumably learned that it is appropriate, to respond to printed stimuli with meaningful responses, which, after all, *is* reading. By contrast the letter group apparently learned to attend to the visual features that provided a basis for discriminating among the words. A subsequent study by the Cornell group *(9)* indicated that training with the letter at the beginning of a word is relatively more effective than with letters that occur in other positions. Another factor we attempted to assess was the relative effectiveness of presenting the materials in the matching tasks either simultaneously or successively *(7)*. Table 4 shows the difference in these two approaches. In the top example, the matching stimulus is presented at the same time as the re-

TABLE 2
TYPE OF TASK AND ORDER

| First | | Second |
|---|---|---|
| Visual Discrimination Training (Matching) | | Reading Words |
| Groups | Materials | All groups |
| Same form | feu, geu, reu | feu - "blue" |
| Different form | fjd, gjd, rjd | geu - "red" |
| Letters only | f, g, r | reu - "white" |

656.

TABLE 3
TYPE OF TASK AND ORDER

| First | | Second |
|---|---|---|
| Visual Discrimination Training (Matching) | | Reading Words |
| Groups | Materials | All groups |
| Different word (meaningful) | nest, cake, ring, duck | hand |
| Different word | nest, cake, ring, duck | coat |
| Same letters | h,a,n,d,c,o,a,t, g,i,r,l,s,h,o,e. | girl |
| Same word | hand, coat, girl, shoe | shoe |
| Control | | |

sponse choices; in the bottom example, the matching stimulus is presented first and then removed before the response choices are presented. We found no reliable differences between these two methods of matching as measured in performance on the reading task.

TABLE 4
TYPES OF VISUAL DISCRIMINATION TASKS

Simultaneous (same page)

| hand | hand | coat | girl | shoe |
|---|---|---|---|---|

Successive (different page)

| hand |
|---|

| | hand | coat | girl | shoe |
|---|---|---|---|---|

Positive transfer to reading resulting from associating a meaningful picture with a word in visual discrimination training led to the question: What is the most effective combination of cues for helping children learn sight words? The study designed to answer this question *(8)* is shown in Table 5. Children were asked to learn to read two lists of words.

TABLE 5
TRAINING GROUPS

| Training | Kinds of Words | |
|---|---|---|
| Printed word + | Dissimilar (gate, drum, nest, fork) | Similar (doll, ball, bowl, bell) |
| Picture | Group 1 | Group 2 |
| Auditory | Group 3 | Group 4 |
| Picture + Auditory | Group 5 | Group 6 |
| Auditory + Echoic Response | Group 7 | Group 8 |
| Picture + Auditory + Echoic Response | Group 9 | Group 10 |

In one list, the words were highly similar in sound and appearance; in the other list, highly dissimilar in sound and appearance. The same table also shows the different combination of cues that were used in teaching the words to different groups of children. In each group the printed word was always presented. In

657.

addition, the words were accompanied by one or more additional cues. For example, in groups three and four, the printed word was accompanied by the teacher's saying it and the child repeating it. In groups nine and ten, the word was accompanied by cues provided by a picture, the teacher's saying the word, and the child's saying it. After each of the four words and accompanying cues were presented to the various groups, a test trial was given using the word alone, with the child trying to recall the correct response. The results at the end of the learning session are shown in Table 6.

TABLE 6
MEAN NUMBER OF CORRECT RESPONSES

| Training Method: Printed Word + | Word Groups (gate, drum, nest, fork) Mean | Rank | Word Groups (doll, ball, bowl, bell) Mean | Rank |
|---|---|---|---|---|
| Picture | 18.62 | 5 | 12.62 | 1 |
| Picture + Auditory | 20.94 | 4 | 11.86 | 2 |
| Picture + Auditory + Echoic Response | 21.14 | 3 | 11.43 | 3 |
| Auditory + Echoic Response | 22.10 | 2 | 11.19 | 4 |
| Auditory | 23.38 | 1 | 7.67 | 5 |

They indicate that when words were highly similar, additional cues helped the child discriminate and recall the printed word and sound association. Thus, groups 1-4 were reliably better in performance than the group that just heard the teacher say the word. For the dissimilar word groups, just the opposite order resulted. Hearing the word alone provided the best learning condition while the picture cue provided the least effect method. Since it is likely that most printed words appear more similar than different to the beginning reader, it would seem safe to conclude that the use of pictures and other accompanying cues will be helpful in mastering sight vocabulary.

One final area of our research remains for summary. The question can be asked: If training in discriminating among letters facilitates word discrimination and reading, what effect does knowledge of the letter-names have on this process? The results of a study just completed are shown in Table 7 *(13)*. The columns

TABLE 7
DISTRIBUTION OF HIGH AND LOW READERS ON THE HARRISON-STROUD LETTER-NAMING CONTEST

| | Giving Names of Leters | |
|---|---|---|
| | Lowest 50% | Highest 50% |
| High readers | 0 | 24 |
| Low readers | 13 | 12 |

represent above and below the median groups based on the Harrison-Stroud letter-naming subtest administered in September of first grade. The rows represent extreme reading groups (matched in IQ) based on end-of-first grade year Metropolitan reading test performance. Letter-naming ability appears to be markedly associated with later reading success. No child below the 50th percentile in letter-naming ability was in the high reading group. Twice as many children above the 50th percentile appeared in the high as compared to the low reading group. These results support Durrell's *(2)* earlier findings. We are not certain whether this relationship indicates that *training* in the knowledge of letter-names would facilitate word discrimination and reading, or whether knowledge of letter-names is an indication of a basic ability to form associations between abstract visual stimuli and auditory sequences. Durrell's methods study involving teaching letter-names and sounds supports the training notion.

## Implications for Teaching

Keeping in mind that we are now moving from controlled experimental situations to the classroom, the results of this experimentation appear to have some practical implications for the classroom teacher.

1. Visual discrimination training from the very beginning should be with word and letter stimuli. Having the child match animal pictures, geometric forms, or any kind of non-verbal graphic stimuli does not appear to transfer to word discrimination. Our data confirms a point of view expressed by McKee *(10)* almost 20 years ago.

658.

2. The simultaneous matching format which exists in most prereading books and charts at the present time seems adequate. To date we have found that simultaneous matching is easier than successive matching and that the transfer of discrimination learning appears to be about as effective.

3. Since matching letters is an easy task for kindergarten children, the earliest visual discrimination exercises should use letter stimuli. Although we do not as yet know how knowledge of letter-names works in the discrimination and reading process, the evidence strongly indicates that teaching the letter-names is probably highly useful. Letter discrimination and naming can be taught simultaneously.

4. Just prior to beginning reading instruction, visual discrimination exercises should include training in making the "three-way association" of the sound and the meaning with the visual form. If words are accompanied by a representative picture (when possible) and the pronunciation of the word, then a child gradually learns to attach a meaningful verbal label to the printed word each time it is encountered in a matching exercise. Such training provides not only for skill in visual discrimination but also skill in responding to graphic symbols in a manner similar to that required in learning to read.

5. Since the transfer of visual discrimination training seems to be very specific, the teacher would do well to give children practice in discriminating among the new words to be learned at the beginning of a reading lesson. At this point, a successive presentation could be used in the discrimination training. This type of presentation demands greater attention to the words in order to recall their letter characteristics since the word is not in view when the choices are presented.

6. When presenting new vocabulary words, particularly words that are easily confused with other words because of sound and letter similarities, providing additional cues in the form of pictures, when possible, and having the children pronounce the words will probably facilitate learning.

If the above research has answered a few questions, it has raised many more. Much investigation needs to be done. We hope to continue our efforts.

## REFERENCES


1. Buswell, Guy T. *Fundamental Reading Habits:* A Study of Their Development (Supplementary Educational Monographs, No. 21.) Chicago: University of Chicago, 1922.
2. Durrell, Donald D. "First-Grade Reading Success Study: A Summary," *Journal of Education,* Boston University School of Education, 140:3 (February, 1958), 2-43.
3. Ellis, William Davis. *A Source Book of Gestalt Psychology.* New York: Humanities Press, Inc., 1955.
4. Fries, Charles C. *Linguistics and Reading.* New York: Holt, Rinehart and Winston, 1962.
5. Goins, Jean Turner. *Visual Perceptual Abilities and Early Reading Progress* (Supplementary Educational Monographs, No. 87). Chicago: University of Chicago Press, 1958.
6. Huey, Edmund B. *The Psychology and Pedagogy of Reading.* New York: Macmillan Company, 1908.
7. King, Ethel M. "Effects of Different Kinds of Visual Discrimination Training on Learning to Read Words," *Journal of Educational Psychology,* 55:6 (December, 1964), 325-333.
8. King, Ethel M. and Muehl, Siegmar. "Different Sensory Cues as Aids in Beginning Reading," *The Reading Teacher,* 19:3 (December, 1965), 163-168.
9. Marchbanks, Gabrielle and Levin, Harry. "Cues by Which Children Recognize Words," *Journal of Educational Psychology,* 56:2 (April, 1965), 57-61.
10. McKee, Paul. *The Teaching of Reading in the Elementary School.* Boston: Houghton Mifflin, 1948.
11. Muehl, Siegmar. "The Effects of Visual Discrimination Pretraining on Learning to Read a Vocabulary List in Kindergarten Children," *Journal of Educational Psychology,* 51:4 (August, 1960), 217-221.
12. Muehl, Siegmar. "The Effects of Visual Discrimination Pretraining With Word and Letter Stimuli on Learning to Read a Word List in Kindergarten Children," *Journal of Educational Psychology,* 52:4 (August, 1961), 215-221.
13. Muehl, Siegmar and Kremenak, Shirley. "The Ability to Match Information Within and Between Auditory and Visual Sense Modalities and Subsequent Reading Achievement," *Journal of Educational Psychology,* (in press).
14. Smith, Henry P. and Dechant, Emerald V. *Psychology in Teaching Reading.* Englewood Cliffs, New Jersey: Prentice-Hall, 1961.
15. Staats, Carolyn K., Staats, Arthur W., and Schutz, Richard E. "The Effects of Discrimination Pretraining on Textual Behavior," *Journal of Educational Psychology,* 53:1 (February, 1962), 32-37.


659.

212.

# PRESSING PROBLEMS

## A. PRIMARY LEVEL

### 1. Policies Determining Which Young Children Are Ready

MARY GLENN PEERY
North Texas State University

IN ORDER TO approach this topic with a similar frame of reference, we must look first at the definition of two words basic to our area of study. First, what is a policy? Webster's Dictionary defines the term as a general notion, to regulate, and not a fixed system or hard rule. What is readiness? Russell *(9)* describes it as a composite of physical, mental, social, and psychological factors plus information, attitudes, and abilities gained through experiences. In general there are two ways of looking at readiness. One involves formal instruction that refers to teacher-directed reading activities which are arranged for children who seem to be ready to read. The other is to consider readiness as all those informal reading activities which are self-initiated and which the child does naturally. References to readiness in this paper will be based on the former—that of considering readiness as a teacher-directed activity. While most schools tend to include both formal and informal activities in a reading-readiness program, there does seem to be more emphasis in one direction or the other, depending on the policies to which the school subscribes.

Which policies do public school systems follow in determining reading readiness? After considering this question, the writer mailed questionnaires to various school systems in her geographical area. The responses indicated that no one policy was used by any two schools. In fact, most schools were frank to admit that they had no established policies pertaining to readiness for beginning reading. Some schools answered that they were writing new policies in relation to a new reading series. Many returns indicated that schools turned to readiness tests for help. Other schools used a combination of readiness test results and teacher's appraisal of the physical, social, emotional, and intellectual factors which influence readiness for beginning reading. No school reported that a six-year-old was taught formal reading merely because he had passed his sixth birthday.

Moreover, in a review of the literature, no established policies were found, no principles were clearly defined, and no specific plan was given to determine which children were ready to read. However, it was evident that policies are being influenced by pressures. Suggestions for policy making are rarely made by public school officials but rather by the press and parents who pressure and push for early beginning reading. These pressures appear to be mounting at an alarming rate in speeding-up activities in reading instruction for *all* children. The demands for excellence in education have intensified the push for younger readers and the cry seems to be, "Let's have more and let's have it sooner."

The press influences policies by turning out large amounts of sensational reports suggesting that young children who are reading early are something "marvelous and miraculous like space travel." One recent publication, *How to Teach Your Baby to Read,* written by Doman *(2)* is intended as a guide for parents. Doman encourages parents to teach their babies to read at the age of two years or at the tender age of ten months if the mother is clever enough. He says, "Tiny children not only want to and can, but should, learn to read." But why should they? Can anyone present a sound psychological reason why a baby needs this social tool?

Many policies regarding reading readiness spring from the strongest pressure



660

group in the world. This group consists of the many "child worshipers," the parents, who are pushing for early reading. They are looking for a nursery school or a tutor to insure an early reader before kindergarten. With an early start in reading they are confident that their children will be insured of success in school. Parents, many of whom feel guilty because they have not achieved, are achieving through their children. In our society an early reader has become a status symbol as parents push their children along the shortest route from the cradle to the ivy-league college. It is a matter of prestige and pride to boast that a child has learned to read before entering school.

Some policies are being made as a result of the findings of research studies. Early reading is encouraged by Durkin *(4)* who studied 49 California children in favored homes who learned to read before first grade. Her fifth-year report of the achievement of these public school boys and girls continued to favor an early start in reading. Another well-known advocate of early reading instruction is Moore *(7)* who uses an electric typewriter to teach preschoolers to read. Moore is confident that early reading is beneficial for a child's general intellectual development. A third example of early reading success is the study described by Downing *(3)* of the University of London. He reports that young children of the Infant School in England have been taught to read using the Initial Teaching Alphabet. This augmented alphabet of 44 symbols was devised by Sir James Pitman to be used only for the beginning stages in reading.

Still another research project that is being followed closely by reading specialists is the Kindergarten Study of the Denver Public Schools *(1)*. Using 4,000 pupils, the Denver officials have provided instruction in beginning reading to kindergarten children since 1960. A parallel study was also initiated to determine how effectively parents could provide reading-readiness activities for their preschool children. These research projects are not in their final phases as indicated by a recent correspondence from the Denver Public Schools. It is reported that "extended trials are being given some of the activities which are designed to teach skills basic to beginning reading" *(1)*.

Perhaps at this point you are wondering whether early reading is desirable. Are early reading skills of long-term advantage or a disguised handicap? One answer comes from Smith *(10)* who found "that the bulk of the evidence that we have at present indicates that pressuring children to read is of no advantage in the long run and that it may have harmful effects." Moskowitz *(8)* gives an answer by referring to a follow-up of Durkin's study in the third grade that showed that the brightest two-thirds had not maintained their advantage . . . the bright non-reading entrants had gradually caught up with them. The lowest third of the children still apparently maintained some advantage." Even Durkin *(4)* pointed out that "these findings do not necessarily provide support for earlier school instruction in reading." Another answer came from Hampleman *(5)*. In his 1959 study of the achievements of early and late school starters when they were in grade six, he reported that "children have considerably better chance for success in reading by starting to school a few months later, rather than a few months earlier." His second study with 323 sixth-grade pupils in Illinois favored the older pupils and was statistically significant.

With such a wide movement for earlier reading instruction, it might be wise for school people to verify or refute the validity of these pressures by examining the bases for determining a child's readiness for beginning reading. This age is no time for snap judgments, but time to make important, intelligent decisions that will guide us in making needed changes. No policy should be established until longitudinal studies have been investigated to discover the most effective ways to decide which children are ready for formal instruction in reading. It is time to study current findings in child development because the experts remind us that "the child in his own individual right, which includes his own rate of growth, has been neglected in these reading evaluations" *(6)*. The best screening techniques are needed to determine which children are mature enough and ready

for formalized reading work. Some specialists suggest a realistic appraisal of each child's readiness by using a behavior test to determine the child's total developmental level and his level of performance. Ilg and Ames *(6)* consider a child's behavior level rather than his age in years as the correct clue to what shall be offered or presented him. Such information would include a study of each child and such a study is necessary if we are to be even reasonably certain of a child's readiness to read.

It is also time for teachers to determine each child's stage of readiness and base his instruction on these carefully determined individual needs. Some bright children are clamoring for reading at an early age. They must realize that there is no reason why these children should not be given special attention in an informal, relaxed program. The children who show that they want help or who demand a chance to learn to read should receive guidance individually. Let me strongly emphasize that schools must also recognize and respect those children who show no interest in reading, even though they may appear ready because they seem socially mature. We need to realize that because some children learn to read at surprisingly early ages is no proof that *all* should. There is no one approach for *all* children. Children cannot be "homogenized."

Teachers must learn to take cues from children and respond to their separate needs. Some children may not be ready for a formalized program until much later than we would ordinarily expect. For example, the socially disadvantaged are verbally impoverished and need language-learning experiences before formalized instruction in beginning reading. These children must not be overlooked or underestimated simply because the rules do not apply to them. We must turn to these children to find out the language they understand and relate the reading instruction to their spoken language. Many of the cues and clues that suggest appropriate reading experiences come from the children. No manual, guidebook, or yearbook can supply the precise and exact answers to the problems a teacher faces in working with children who are not quite ready for formalized instruction.

In addition, a teacher must consider a combination of findings with the readiness test results. As no test is infallible, she should use ratings, readiness inventories, and even checklists for parents. Such a checklist of developmental skills could provide a systematic means for parents to assist a teacher in appraising a child's readiness for school. Seeking parent involvement has been recommended by Russell *(9)* when deciding which individual is ready to start formal reading.

Further, we must realize, the problems that such a responsibility raises are complex and difficult to solve on an individual basis. The teacher's tasks involve selecting a readiness test, diagnosing each pupil's level of growth and development, and checking the kinds of experiences and skills each child has had and needs for beginning reading. In making these decisions she finds many unanswered questions. Which readiness test should be used? Do tests measure all factors involved? Which prereading skills are necessary? What kinds of experiences are needed? Should the rating scales be followed rigidly? Should she make all final decisions? Perhaps she needs help from a carefully selected, representative group composed of a reading consultant, a psychologist, the principal, and a parent.

Obviously, there are no easy answers and no magic formulas. Perhaps the reports from the U. S. Office of Education First-Grade Reading-Readiness Programs will aid the teacher in making intelligent decisions. She must remember that such decisions will make the difference for individual learners for the rest of their reading lives. This fact suggests that any policy be exceedingly flexible and include the basic principle that real teaching is meeting each child where he is and helping him to grow.

When the schools decide on policies to determine which children are ready for reading instruction, they should plan their program and clearly explain the goals to the public. The schools must abide by the principles of sound reading instruction and refuse to be swayed by pressures. They must meet pressures with positive action rather than defensiveness and not be caught in the controversy. They must accept each child, give him the reading activities he needs when he needs them, and protect every child from the "swings of fashion in public opinion."

## REFERENCES


1. Denver Public Schools, "Beginning Reading Pilot Study," Denver, Colorado: Denver Public Schools, March 17, 1966 (mimeographed).
2. Doman, Glenn. *How to Teach Your Baby to Read.* New York: Random House, 1963.
3. Downing, John. "The Augmented Roman Alphabet for Learning to Read," *The Reading Teacher,* 16 (March, 1963), 325-336.
4. Durkin, Dolores. "A Fifth-Year Report on the Achievement of Early Readers," *Elementary School Journal,* 65 (November, 1964), 76-80.
5. Hampleman, Richard S. "A Study of the Reading Achievements of Early and Late School Starters," *Elementary English,* 36 (May, 1959), 331-334.
6. Ilg, Frances L. and Ames, Louise B. *School Readiness.* New York: Harper and Row, 1964.
7. Moore, Omar K. "Early Reading and Writing" (16 mm film in color), Guilford, Conn., Basic Education Council.
8. Moskowitz, Sue. "Should We Teach Reading in the Kindergarten?" *Elementary English,* 42 (November, 1965), 798-804.
9. Russell, David H. *Children Learn to Read.* Chicago: Ginn and Company, 1961.
10. Smith, Nila B. "Early Reading: Viewpoints," *Childhood Education,* 42 (December, 1965), 229-241.

213.

## a. Promoting Visual Readiness for Reading

87.

ALFRED A. ROSENBLOOM, JR., O.D.

Just as educational principles concerning the objectives of reading instruction have changed markedly within the past 25 years, so have we in the field of Optometry seen equally marked changes in our concepts of good vision as a vital factor in the progress and well being of



the child. Formerly, the optometrist was concerned primarily with the keenness of vision and the use of both eyes in the act of seeing. As important as these considerations are in caring for the vision of the child, the optometrist now knows that they constitute only a small segment of the knowledge he must have to determine whether the child is visually efficient and he now asks: "Do this child's visual and perceptual processes operate effectively so that meaning may be obtained from the printed page?"[1]

In seeking the answer to this question, let us explore some of the wonders of vision: (1) by considering the developmental aspects of vision; (2) by determining visual readiness for reading including the role of visual perception; (3) by describing the development of visual problems and their effect on reading achievement; (4) by discussing how visual problems may be identified and corrected; and (5) by considering the challenges that lie ahead.

### Developmental Aspects of Vision

How astounded would the men of our profession have been 25 years ago to hear me say the child's visual history begins in the darkness of the uterus. Yet to us the statement that patterns of visual behavior in ordered sequence though the stages of infancy, pre-school childhood, and school years is commonplace.

Dr. Gesell's[2] statement that "vision is so intimately identified with the whole child that we cannot understand its economy and its hygiene without investigating the whole child"—is, in a sense, the keynote of the research that has resulted in our present orientation. As our knowledge about human development has expanded, we have sought eagerly for applications of this knowledge to our optometric examination techniques and practice.

One of the problems in discussing development is that of formulating a rationale for a comprehensive description of its stages and sequences. One method of accomplishing this satisfactorily is to use key ages as a frame of reference. The organization of behavior begins long before birth. The general pattern of foetal development is from head to foot, from proximal to distal segments. Lips and tongue lead, eye muscles follow, then neck, shoulder, arms, hands, fingers, trunk, legs, and feet. Within this scheme the significance of vision in the early development of the organism is clearly emphasized.

A second way of describing growth involves the concept of Organismic Age, developed by Olson,[3] which provides a quantitative base for measuring a child's total development. It stresses readiness for learning. Although Olson's work does not include a specific appraisal of visual development, it has nevertheless tremendous significance for optometry. The formulation of a Visual Age as another aspect of the Organismic Age would provide still another criterion for determining the most appropriate program of visual care.

Although more research is needed, researchers in the field of child development have already laid down for us the framework of a developmental approach to the function of vision. From this viewpoint, we regard vision as a total and singularly complex process. Three components participate in the visual act are: (1) the autonomic component which regulates the focusing of the eye; (2) the skeletal component which controls the position of the eye for single vision; and (3) finally the cortical element which effects the fusion or unification and interpretation of objects perceived.

The infant and child learns a pattern of visual behavior characterized by a distinct constellation. Clearly the functional complex of the visual process produces a visual behavior pattern unique to each child.

As an integral part of this pattern of growth, there is a progressive maturation of all the sense modalities—visual, auditory, tactile, taste, smell. Thus, an important aspect of the organization of the central nervous system is the progressive development and refinement of integrated

[1] Marguerite Eberl, *Visual Training and Reading*, Clinical Studies in Reading, II, Supplementary Educational Monographs, No. 77, p. 342, University of Chicago Press, 1953.

[2] Arnold Gesell, *Vision; Its Development in Infant and Child*, p. 10, New York: Paul B. Hoeber, 1949.

[3] Willard C. Olson, *Child Development*, Chap. VII., Boston: D. C. Heath & Co., 2nd ed., 1959.

663.

discriminatory skills. It is not an accident therefore that the normal child is *not* visually ready to read before he is at least six years of age. Reading readiness programs take cognizance of this developmental pattern of vision.

**Visual Readiness and Its Role in Visual Perception**

One of the optometrist's responsibilities in your program of promoting reading readiness is to make sure by means of a functional analysis that the child *is* visually ready for reading. This requires consideration of such questions as these: (1) Can the child see clearly and distinctly at all working distances? (2) Can he fuse the impressions of each eye into a single image at all working distances? (3) Do the functions of seeing clearly and seeing singly have sufficient coordination to enable the child to continue efficiently his visual tasks? (4) Does he possess sufficient fusional and accommodative reserves to maintain sustained visual concentration? (5) Does the child's refraction status vary significantly from normal? (6) Is he competent in tasks requiring good hand-eye coordination? (7) Can he perceive accurately size-distance relationships? (8) Can he quickly change fixation and focus in relation to the demands of the visual task? (9) Is the child free from any disease of the eye which would interfere with normal vision functioning? If the optometrist can answer these questions in the affirmative, he is reasonably certain that the child is visually ready for reading.

Extensive as our present knowledge is, by no means do we have the entire answer to the question of determining readiness for reading. That much remains to be understood is suggested by some of the research regarding visual perception.

By visual perception we do not mean simply acuity or clearness of vision nor do we mean to indicate a purely psychological or behavioral phenomenon. Theories of perceptual development attempt to relate the nature of the stimuli to the learning process. The perceptual theories developed by such writers as Hebb,[4] Gibson,[5] and Murphy[6] stress the contribution of sensory experience to perceptual differentiation. Our efforts to explain this process fully have thus far yielded answers that are far more *provocative* than *definitive*. Nevertheless it seems certain that these studies will offer a new avenue to further understanding of the factors involved in successful preparation for reading.

The development of perceptual skills starts in infancy with perception of a rather vague whole against a dim background and progresses toward increasingly sharp and clear apprehension both of the quality of the whole and of its details. Hebb reports the course of perceptual learning in man as gradual in nature, proceeding from a dominance of color, through a period of separate attention to each part of a figure, to a gradually arrived at learned identification of the whole as a whole; an apparently simultaneous instead of a serial apprehension. According to Vernon,[7] young children tend to see things as a whole, but this tendency is dependent upon the "goodness" of the shape. Is it a coherent whole with a clear outline and fairly obvious structure or does it consist of a complicated mass of details without obvious interrelations?

In one attempt to determine the type of sensory experience that will facilitate learning to read research has been directed to determine whether children who are successful in learning to read can be differentiated according to their perceptual discrimination patterns. Some current research studies have formulated a hypothesis that there are two types of perceivers —part and whole—and, moreover, that the whole perceiver would generally be more successful in those instances where the whole word approach is stressed.

In investigating the relationship between modes of visual perception and reading achievement in a first grade population, Goins[8] defined good readers as those that were able to hold in mind a

[4]D. O. Hebb, *The Organisation of Behavior*, p. 17-37, 60-78, New York: John Wiley & Sons, 1949.
[5]J. J. Gibson, and E. J. Gibson, *Perceptual Learning: Differentiation or Enrichment?* Psychological Review, 1955, V. 62, p. 32-41.
[6]G. Murphy, and C. Julian Hochberg, Jr., *Perceptual Development: Some Tentative Hypotheses*, Psychological Review, 1951, 58, 332-349.
[7]M. D. Vernon, *Backwardness in Reading: A Study of Its Nature and Origin*, Chapter II. Cambridge, Cambridge University Press, 1957.
[8]Jean T. Goins, *Visual and Auditory Perception in Reading*, Reading Teacher, XIII (Oct., 1960), pp. 9-13.

664.

total configuration at the same time that they manipulated or attended to the parts of the whole. The theory of visual perception in reading postulated by this study is that efficient reading involves not only the ability to keep in mind the wholeness of a word, phrase, or sentence (that is, to perceive its total configuration and larger relationship both mechanically and ideationally), but also the ability to attend to individual letters or words. The good reader appears either to develop or possess inherently what Goins refers to as "strength of closure."

We must conclude then that acquisition of facility in well-integrated perceptual processes requires prolonged practice, much of it in tasks which are singularly difficult for young children. Thoroughly analyzing a child's visual capacities is essential if he is to progress satisfactorily to the stage of reading whole words and phrases—a characteristic of the mature reader.

### The Development of Visual Problems

If the child's growth processes are normal by the time he is seven or eight, the child has developed a mature pattern of binocular vision. If during the growth period something interferes with his ability to fixate or focus or fuse the two images, the child may develop an abnormal adjustment to binocular vision. This interference may be on the one hand a task inappropriate to his level of maturity; on the other hand it may be an interference caused by an anatomical or physiological alteration in visual structure. The new demands of the classroom present him with tasks that might be inappropriate to his level of maturity. For example, learning to read involves the ability to change focus and converge and to maintain this complicated posture as the eyes move along the printed page. In addition to this difficult maneuver, reading demands that meaning be extracted from printed symbols. In an effort to achieve single clear vision so necessary for efficient reading, the child who is *not* visually mature may attempt three types of visual adaptations: anomalies of focusing, fixating or fusing.

The importance of reading throughout the school program influences the magnitude of the reading problem. A child with a vision problem may make a variety of adjustments. It is not uncommon to find the child adapting by retreating from the reading act. Not being able to take advantage of the reading instruction, he becomes further and further retarded in reading and reading subjects until he is finally classed as a retarded reader. His comprehension of reading material will often be low because his conscious attention must be directed toward maintaining clear and single vision. He may achieve this, but often at the expense of failing to remember what he reads. This child will often be found in the failing or borderline failure group. In many instances he may achieve only with repeated tutoring and outside help despite a high learning capacity. If he is highly motivated, he will achieve by spending much more time at his studies than the average child. If he is *not* a highly motivated child, he will become discouraged. He will announce that he does not like reading, and may secretly conclude that he is dumb. He may become resentful of his associates who achieve where he fails and he may resent the demands of his teachers who seem to require the impossible of him.

### The Development and Correction of Visual Problems

Many of these children experiencing visual problems will pass the visual screening procedures used in most schools today —a test designed in 1863 by a man named Snellen.

The Snellen test is adequate as far as it goes—determining clearness of vision at far only—but it gives us no information concerning the many additional skills necessary for efficient seeing. This type of examination identifies for referral mostly myopic children. Research indicates that myopic children tend to be the better readers; therefore, the Snellen test tends to identify your best readers.

But a correction for myopia by an examination made only while looking at a chart across the room rarely makes the child more comfortable or efficient at the reading distance. Robinson,[9] investigating

[9]Helen M. Robinson, *An Analysis of Four Visual Screening Tests at Grades Four and Seven*, American Journal of Optometry and Archives of American Academy of Optometry, XXX (April 1953), p. 185.

665.

the relationship between distance and near acuity, reports coefficients of correlation ranging from .24 to .63. It is clear that even the highest correlation is too low to predict accurately near acuity from distance scores. Visual factors that affect the scholastic standing of the child involve other functions.

Many of you are familiar with screening tests other than the Snellen chart. Although these devices are more complete than the Snellen chart, they also have many limitations. Visual screening is *not* a visual examination. Visual screening is *not* designed to help the teacher or school nurse diagnose the visual problem. The purpose of visual screening is *not* to define the defect. Visual screening is a means of identifying children with visual difficulties who should be referred for visual examinations. It provides little more than a rough over-all estimate of visual function.

Because of these limitations, plus the fact that many schools have no visual screening programs, recent studies have been conducted to determine the accuracy with which a checklist of visual symptoms could be used to identify pupils needing professional eye care. Available research studies suggest that in those instances where the observations are carried out by a trained classroom teacher, the use of a carefully selected checklist of visual symptoms can be a valuable supplement in identifying visual problems. Helpful as these devices may be, research in developmental vision has made us increasingly aware that acuity, fusion, and all the other visual skills must be regarded as a complete act which varies with maturation and environment. Only a complete visual case study will identify as visual problems those children who pass successfully visual screening tests and yet manifest a visual problem.

Therefore, if we are to determine the child's visual readiness for the impact of school tasks it is highly important that he be given a complete visual examination before he enters school. Such an analysis should *not* measure distance acuity alone but should include a complete appraisal of near and far visual performance. Moreover, such examinations should be made at annual or other spaced intervals.

When there is evidence of a visual problem, the correction may involve the prescription of lenses or visual training or both. Visual training literally means "teaching to see." The principles of visual training, based on the developmental concept of vision, employ techniques to eliminate faulty visual habits and also to promote the development of more efficient visual skills. Although the nature and extent of each visual training program will vary, the ultimate objective is one of developing all visual skills considered essential for comfortable visual performance to the limits of the ability of the child.

### What Are the Challenges That Lie Ahead?

The first challenge presents the necessity for universal pre-school analyses. We look forward to the day when pre-school visual analyses will become as routine as inoculations against childhood diseases.

The second challenge recognizes the need for further experimental research in child vision. Although we have developed an extensive battery of pre-school test procedures that can be used with confidence, new and refined test techniques and standards of evaluation of performance will undoubtedly emerge as a product of continued research.

A third challenge stresses the importance of integrating our efforts with those of other professional groups devoted to developing each child's maximum potentialities. We must further integrate our efforts with those of educators, specialists in all phases of the healing arts, community leaders, school administrators—so that all professional groups and agencies may be made increasingly sensitive of their responsibilities to the welfare of the child.

666.

214.

Vol. 10, 65



## 5. Perceptual-Motor Training and Readiness

WILLIAM L. RUTHERFORD
Tarkio College

EDUCATORS generally agree that readiness for learning is a process based on a combination of interrelated factors, i.e. physical, mental, psychological, and social factors. Within this combination of factors, Kephart[1] has suggested there are certain basic skills necessary to readiness which must be developed if a child is to gain maximum benefits from formal educational activities. These skills he has described as perceptual-motor skills since they involve simultaneously perceptual and motor abilities. Included in these basic skills are laterality,[2] directionality,[3] accurate body image concepts, visual-kinesthetic matching, and binocular and monocular control.

### Problem

A play program using certain equipment and activities was designed to develop in kindergarten children each of the above skills. The problem of the study was to determine the effects of the training program on the readiness development of kindergarten pupils as indicated by their performance on Metropolitan Readiness Tests.

### Procedures

Subjects of the study were forty-two boys and thirty-four girls in a church-sponsored kindergarten. They ranged in age from sixty-two to eighty months at the beginning of the eleven-week study. Through random assignment the subjects were divided into experimental and control groups in a manner that permitted comparison of total groups, boys and girls, and younger and older subjects.

During the study the control subjects continued to play on their regular playground which was equipped with three slides, three swings, and two jungle gyms. The experimental subjects were taken to a separate play area equipped only with experimental equipment. Both groups played for thirty minutes each day under the supervision of the investigator. For the controls, the period was spent in almost complete free play. The experimental subjects spent approximately two-thirds of the period in free play and the rest in directed use of the equipment and activities.

The training equipment and activities included the following: (1) walking boards, (2) creeping activities, (3) obstacle course, (4) bouncing tubes, (5) stunts, (6) balance boards, (7) tether ball, (8) pirate ball, (9) stepping stones, and (10) Marsden Ball. This complete program, except for the creeping activities and pirate ball, is described in detail by Kephart.

The creeping activities involved creeping through metal barrels and a cloth tunnel with proper alternation of arms and legs and without touching the top. Purpose of the activities was to develop gross motor coordination and body image concepts.

Pirate ball was used to develop ocular control by strengthening monocular and binocular vision and to improve visual-kinesthetic matching. Subjects were required to hit a target with a rubber ball or catch a moving ball that was approximately five inches in diameter. While playing, each eye was occluded alternately for not more than two minutes. After adequate monocular vision was developed, both eyes were used.

The bouncing tubes substituted for a trampoline.

Separate forms of Metropolitan Readiness Tests were administered to all subjects immediately before and after the study. Raw scores were obtained in reading, number, and total readiness. Changes in test scores were analyzed by a complex analysis of variance to determine if any significant changes occurred in measured readiness.

Table I shows the mean gains made on the Reading Readiness test by the groups which constituted the variables in this study. The difference between the total groups was significant at the 1 per cent

[1]Newell C. Kephart. *The Slow Learner in the Classroom*. Columbus, Ohio: Charles E. Merrill Books, Inc., 1960.

[2]Kephart defines laterality as an internal awareness of the two sides of the body and their differences.

[3]Directionality is defined as the projects of the left-right discrimination within the body to objects outside the body.

667.

TABLE I
MEAN GAINS IN READING READINESS

| Subjects | Gain | Subjects | Gain | LS* |
|---|---|---|---|---|
| Total experimental | 4.3571 | Total control | 1.7857 | .01 |
| Boys | 2.7500 | Girls | 3.3929 | |
| Younger | 3.4127 | Older | 2.7302 | |
| Experimental girls | 3.7104 | Control girls | 3.0714 | .05 |
| Experimental boys | 5.0000 | Control boys | .5000 | |
| Young experimental | 4.8750 | Young control | 1.0875 | |
| Old experimental | 4.0000 | Old control | 1.0375 | |
| Young girls | 3.7143 | Old girls | 3.0714 | |
| Young boys | 3.1111 | Old boys | 2.3889 | |
| Young experimental boys | 5.3333 | Young control boys | .8888 | |
| Young experimental girls | 4.2857 | Young control girls | 3.1428 | |
| Old experimental boys | 4.6666 | Old control boys | .1111 | |
| Old experimental girls | 3.1428 | Old control girls | 3.0000 | |

*"LS"—level of significance

level of confidence. This tends to indicate that the experimental program was more effective than the control program in developing reading readiness. This finding was minimized, however, by a significant interaction (.05) between treatment and sex. This interaction showed the experimental treatment to be more effective for boys than girls. The mean gain for the boys was 5.000 and for the girls it was 3.7104. On the other hand, the control girls outgained the control boys 3.0714 to .5000.

This study did not suggest a cause for the difference in gains between the experimental and control boys. It may well be that future research will show that early training in perceptual-motor skills is especially effective in promoting readiness in boys, thus reducing the reading readiness gap between boys and girls at the first grade level. The possibility of such a situation is also suggested by other scores recorded in Table I. In the experimental group both the older and the younger boys outgained their female counterparts, whereas in the control group the older and the younger girls outgained their male counterparts.

Analysis of the scores from the Number Readiness Test is presented in Table II. In each instance where experimental and control groups are compared the experimentals made greater gains, but none of the differences reached the .05 level of confidence. No significant difference between the two groups was hypothesized. More than one-third of the items on the test were of the counting variety and it was felt that the perceptual-motor program would not contribute directly to the development of counting skills. Nevertheless, the results indicate the positive value of the program in promoting number readiness. The results also reflect the tendency of the experimental boys to out-

TABLE II
MEAN GAINS IN NUMBER READINESS

| Subjects | Gain | Subjects | Gain | LS |
|---|---|---|---|---|
| Total experimental | 3.7500 | Total control | 2.6250 | |
| Boys | 3.6388 | Girls | 2.6072 | |
| Younger | 3.5000 | Older | 2.8750 | |
| Experimental girls | 3.1421 | Control girls | 2.0714 | |
| Experimental boys | 4.2222 | Control boys | 3.0555 | |
| Young experimental | 3.6250 | Young control | 3.3750 | |
| Old experimental | 4.5000 | Old control | 1.8750 | |
| Young girls | 2.2142 | Old girls | 3.0000 | |
| Young boys | 4.5000 | Old boys | 2.7777 | |
| Young experimental boys | 4.6666 | Young control boys | 4.3333 | |
| Young experimental girls | 2.2857 | Young control girls | 2.1428 | |
| Old experimental boys | 3.7777 | Old control boys | 1.7777 | |
| Old experimental girls | 4.0000 | Old control girls | 2.0000 | |

TABLE III
MEAN GAINS IN TOTAL READINESS

| Subjects | Gain | Subjects | Gain | LS |
|---|---|---|---|---|
| Total experimental | 9.8125 | Total control | 4.6250 | .001 |
| Boys | 14.9444 | Girls | 13.7857 | |
| Younger | 7.9687 | Older | 6.4687 | |
| Experimental girls | 8.1428 | Control girls | 5.6428 | |
| Experimental boys | 11.1111 | Control boys | 3.8333 | |
| Young experimental | 10.5624 | Young control | 5.3650 | |
| Old experimental | 9.0625 | Old control | 3.8333 | |
| Young girls | 7.4285 | Old girls | 6.3571 | |
| Young boys | 8.3888 | Old boys | 6.5555 | |
| Young experimental boys | 12.3333 | Young control boys | 4.4444 | |
| Young experimental girls | 8.2857 | Young control girls | 6.5714 | |
| Old experimental boys | 9.8888 | Old control boys | 3.2222 | |
| Old experimental girls | 8.0000 | Old control girls | 4.7142 | |

gain the girls. However, the control boys were also superior to the girls on this test.

Mean gains made on the Total Readiness Test are shown in Table III. The difference between the total groups was significant beyond the .001 level of confidence. This difference favoring the experimental group seems to signify that the training used in the study was quite effective in increasing total readiness for learning.

The practical significance of the mean gain of approximately 10 points which the experimental groups made is pointed up by a child who increased his test score from 64 to 74. On the basis of national kindergarten norms for this test, this change increased the child's percentile rank from 46 to 69, or from below average to the upper one-third.

On this test of total readiness there was a continuation of the trend for experimental boys to outgain the girls and control girls to outgain the boys. The younger subjects in both groups continued to outgain the older ones as was the case in the other readiness areas.

## Summary and Conclusions

A play program designed to develop certain perceptual-motor skills was used with kindergarten children in an effort to determine its effects on readiness development. The children in the experimental program made significantly greater gains in reading and total readiness than did the control subjects. In number readiness the experimental group also made greater gains, but the differences were not significant. The training program seemed to be especially effective in increasing the readiness development of the boys. The indication that readiness for learning was seemingly increased through a play program emphasizes the fact that readiness is dependent on many interrelated factors.

669.

215.

# 4. Vision and Perception in the Reading Process

503.

WILLIAM L. RUTHERFORD
Tarkio College

JANICE WAS FROM a good home situation where her physical and emotional needs always received care and attention. In the years prior to school entrance Janice seemed to be a child with no unusual characteristics; but when she entered first grade, she had great difficulty learning. Her teacher suspected that she had visual difficulties and recommended a professional eye examination. Janice's vision was severely impaired but correctable with glasses.

After Janice left the doctor's office on the day she received her corrective lens, she strangely called to her mother's attention the signboards along the freeway, the rear lights on the automobiles and the leaves on the trees. Although she now saw these things, she did not know what they were for she had never seen them before. Actually, these things had appeared before her eyes many times, but not in the form and dimension in which they now appeared. These were images that had never been previously transmitted to the central nervous system; consequently, there was no answer forthcoming to Janice's mental question "What are those things?" She had seen and had perceived in the broadest sense, but she had not yet learned. An understanding or meaning for these objects was dependent on additional perceptual experiences, i.e., her mother's explanation of the objects.



Although this illustration is a bit extreme, it serves to emphasize the interrelatedness and significance of vision and perception in the learning process. At the same time it exemplifies the distinctiveness of the two functions. Vision begins when light strikes the retina of the eye. The eye must then point in the direction of the light source. This movement results from a voluntary act of the brain. After aligning with the light, the eyes must adjust to the intensity of light in an effort to bring into clear focus the object to be viewed. This adjustment is an involuntary action. Now if a clear image is to be achieved by the eyes, the voluntary and involuntary movements must work together. Each eye is connected by nerves to both hemispheres of the brain, but there are no muscle connections between the eyes to accomplish this task of coordination. Therefore, the balance between the movements which enable the eyes to focus is created in the brain and controlled through the central nervous system *(1)*. Once the visual image is formed it might be said that vision ends and perception begins. The factors involved in visual perception will be discussed later.

The teacher who reviews available research may be confused as to the exact relationship between vision and reading. Based on her studies of infants, Shirley holds that by age two the use of the eyes in sight is nearly as perfect as it is at the adult level *(16)*. Doman advises parents that "children can read words when they are one year old, sentences when they are two, and whole books when they are three years old—and they love it" *(4)*. The implication is that the younger the child is when we teach him to read, the better he will read.

Given proper interpretation, the foregoing statements might be true and accurate; but contrast them with the statements that follow. Broom and others reviewed the research in this area and concluded ". . . that the accommodation-convergence reflex is not mature before age five and possibly not fixed beyond harm before age eight years" *(3)*. Breckenridge and Murphy maintain that the ability to fuse two images into one develops slowly and is not achieved by most students until the age of six or eight years. Since these skills are vital to reading success, it is not difficult to understand how one might be perplexed about the exact role of vision in reading.

The fact is that the results of hundreds of studies have failed to produce a concensus among authorities on the relation of visual defects to reading ability *(6) (14)*. There does seem to be, however, general agreement on the importance of ocular control and depth perception in the reading process *(2) (5) (9)*. According to Robinson *(13)* the most important condition for reading is eye coordination which involves depth perception, visual fusion, and lateral and vertical eye-muscle balance. These skills of eye coordination and depth perception are the very skills that some of the above-mentioned authorities suggested would not be fully developed before five years and possibly as late as eight years.

The emphasis given here to eye coordination is not intended to suggest that it is the only important visual aspect of reading. Nearsightedness (myopia), Farsightedness (hypermetropis), astigmatism, poor visual discrimination, and poor patterns of eye movements may all influence reading adversely; but these defects are more readily detected in routine eye examinations.

Observations of teaching practices in many primary classrooms prompt me to comment briefly on the eye movements of young children. When an individual reads, his eyes do not move smoothly across the page. The movement is saccadic or jerky. The average recognition span for first graders is 0.45 of a word and does not reach a complete word until

670.

eleventh grade *(18)*. This fact means that in the lower grades the eyes must fixate or stop approximately twice on each word in order to recognize it, and it is only when the eye is stopped that it can recognize letters or words. It also means that in a span of one hundred words the young reader will have to focus and refocus his eyes approximately two hundred times, a task requiring precise ocular control.

When children enter school, they have a pattern of visual functioning as a result of their years of preschool experience. Improvement of this pattern will not naturally occur as a result of experiences in reading *(9)*. Efficiency in eye movement is increased by reducing the number of fixations, the number of regressions, and the length of the fixation pause. Teachers may, indeed must, aid the child's eye-movement development by realizing that the reading of materials having an excessive number of difficult and unknown words and concepts, of words having several meanings, and of content not appropriate to the child's experiences inhibits good eye movements.

Increased efficiency of eye movements will not necessarily improve reading. The multiple skills necessary for reading success must be taught. The eyes cannot tell the mind what it shall understand, but at the same time the mind is dependent on the eyes for the visual impression it might understand.

The classroom teacher is not expected to render diagnosis of the visual problems students may have, but the teacher is in an excellent position to detect the presence of such difficulties. As was illustrated by Janice's case, many times faulty vision does not become evident until the child meets the many demands of the classroom. Thus it behooves teachers to be alert to visual problems.

Knox found in her study that children with visual difficulties project some fairly obvious symptoms which a teacher might observe. These include (1) the tendency to lose place in reading, (2) moving the head frequently when reading, (3) strained posture, (4) tension while doing close work or viewing distant objects, (5) facial contortion associated with tilting or thrusting forward of the head, and (6) excessive rubbing of the eyes (12). Regular observance of any of these patterns would be sufficient reason for the teacher to request a professional eye examination for the child. Teachers who wish to observe the eye movement of students may wish to use the "peep hole" method suggested by Tinker *(19)*.

But instruction in reading must proceed before and after detection of visual difficulties, and it must also continue for those students who have no visual problems. Such instruction must help the child to recognize and give meaning to words, and this ability involves perception as well as vision. The visual perceptual skills most important to reading seem to be directionality, good binocular vision, development of an adequate space structure, and the ability to distinguish likenesses and differences in words and forms. Development of these skills begins with the child's early movements which are of a gross nature. As development continues, the child learns to differentiate the two sides of the body and to separate his movements accordingly. This differentiation provides a basis for establishing the right-left differentiation as well as up and down and fore and aft, all of which are so important in reading. Without this sense of direction no real difference exists between b and d, m and w, or was and saw.

A sense of direction cannot be accomplished in space, however. It is constructed through a combining of visual and kinesthetic experience. As the hand does something, the eye learns to match the kinesthetic pattern with a visual pattern. Following this function the eye must learn to determine the direction of a line in space, and the hand produces the line in accordance with the direction of the line. This latter task requires good binocular vision as well as coordination of the eyes with other muscle groups.

Most children are able to locate an object in space in relation to their own body, but many are unable to locate one object in space in relation to another object in space *(11)*. The successful reader must develop this skill, for recognition of a word requires the reader to relate one letter to another to form a word. The mature reader does not have

to attend to every letter of a word to recognize it. He simply distinguishes from the total symbol those parts which are sufficient to give him a clue to recognition of the total word. From the whole, pieces are seen and these are integrated into a word or form that has meaning. The word must then be related to other words in the sentence. Confusion will result if this organization does not occur. How this space structure develops is not known for certain, but it is dependent in large measure on vision, especially the accommodation-convergence reflex.

On the basis of a study involving forty boys with reading disability, Hagan, Silver, and Hersh concluded: "(1) that perception is modifiable by training and (2) that improved perception is reflected in increased reading achievement" *(10)*. Research also indicates that perceptual training increases reading readiness and reading achievement in normal students *(15) (17)*. If the slow and normal children in the regular classroom are to receive the perceptual training necessary for adequate development of reading skill, every teacher who teaches reading must be familiar with the ways and means of such training.

For the purpose of this discussion we might think of two categories of perceptual training—basic and advanced. In the advanced category we would find the many activities commonly employed in the development of word-recognition skills. This ability includes recognition of a word by an initial letter, by a familiar part, by general configuration, or by suffixes or prefixes. Children may also recognize words through context, recognizing common words in compound words or common syllables in multisyllable words and by association with known objects. Certainly reading teachers at all levels would agree on the necessity of these visual-perception skills in the reading process, but the significant fact to remember is that these skills do not develop automatically; they must be taught and learned.

Included in the category of basic perceptual training are activities designed to enhance basic motor development *(11) (8) (17)*. Proper motor development is requisite to the advanced perceptual growth previously discussed. Included in this category are activities designed to develop the previously mentioned skills of form perception, space structure, ocular control, and directionality. It is true that perhaps only a small percentage of school children are deficient in motor development, but specific training is vital to this group if they are to improve their reading ability. And most students can participate in these training activities without harm and perhaps with benefit.

Space does not permit a description of the activities that might be employed in this basic perceptual training; but I would urge all teachers, and especially primary teachers, to become acquainted with these activities. They might refer to four publications in particular: *How to Develop Your Child's Intelligence* by G. N. Getman, *Success Through Play* by Radler and Kephart, and two bulletins from the U.S. Government Printing Office entitled *Games and Self-Teaching Activities for the Classroom* and *Teachers Contribute to Child Health*.

In conclusion, it should be emphasized that vision and perception difficulties are not the cause of all reading disabilities and elimination of such problems will not guarantee success in reading. The child still must be taught to read. But vision and perception are vital factors in the reading success of all children and cannot be justifiably ignored or neglected by reading teachers.

## REFERENCES


1. Alexander, E. B. "The Story of Vision," *Education*, 79 (February 1959), 380-382.
2. Betts, Emmett A. "A Physiological Approach to Analysis of Reading Difficulties," *Education Research Bulletin*, 2 (1936), 161-191.
3. Broom, M. E. and others. *Effective Reading Instruction*, Second Edition. New York: McGraw-Hill Book Company, Inc., 1951.
4. Doman, Glenn. *How To Teach Your Baby To Read*. New York: Random House, 1964.
5. Eames, Thomas H. "A Comparison of Ocular Characteristics of Unselected and Reading Disability Cases," *Journal of Education Research*, 25 (March 1932), 211-215.
6. Efron, Marvin. "The Role of Vision in Reading Readiness," in *Reading and Inquiry*, (J. Allen Figurel, ed.) International Reading Association Conference Proceedings. Newark: International Reading Association, 10 (1965), 357-358.
7. Frostig, Marianne and Horne, David. *The Frostig Program for the Development of Visual Perception*. Chicago: Follett Publishing Company, 1965.
8. Getman, G. N. *How To Develop Your Child's Intelligence*. Luverne, Minnesota: the Author, 1962.
9. Gilbert, Luther C. *Functional Motor Efficiency of the Eye and Its Relation to Reading*, University of California Publications in Education. Berkeley: University of California Press, 11 (1953), 159-232.
10. Hagin, Rosa A. and others. "Specific Reading Disability: Teaching by Stimulation of Deficit Perceptual Areas," in *Reading and Inquiry* (J. Allen Figurel, ed.), International Reading Association Conference Proceedings. Newark: International Reading Association, 10 (1965), 368-370.
11. Kephart, Newell C. *The Slow Learner in the Classroom*. Columbus, Ohio: Charles E. Merrill Books, Inc., 1960.
12. Knox, Gertrude. "Classroom Symptoms of Visual Difficulty," master's thesis, University of Chicago, 1951.
13. Robinson, Helen M. "The Findings of Research on Visual Difficulties and Reading," in *Reading for Effective Living* (J. Allen Figurel, ed.), International Reading Association Conference Proceedings. New York: Scholastic Magazines, 3 (1958), 107-111.
14. Russell, David H. *Children Learn to Read*, Second Edition. New York: Ginn and Company, 1961.
15. Rutherford, William L. "The Effects of a Perceptual Motor Training Program on the Performance of Kindergarten Pupils on Metropolitan Readiness Tests," unpublished doctoral dissertation, North Texas State University, 1964, 108 pp. (Order No. 65-1150.)
16. Shirley, M. M. *The First Two Years; A Study of Twenty-Five Babies*. Minneapolis: University of Minnesota Press, 1931.
17. Simpson, Dorothy M. "Perceptual Readiness and Beginning Reading," unpublished doctoral dissertation Purdue University, 1960, 103 pp. (L. C. Card No. Mic. 60-4214.)
18. Taylor, Stanford E. *Eye Movements in Reading: Facts and Fallacies*. Reading Newsletter 30, Huntington, Educational Development Laboratories, Nov. 1963.
19. Tinker, Miles A. "Eye Movements in Reading," *Education*, 79 (May 1959), 575-579.


501.

672.

216.

# 2. An Instructional Strategy for Developing Conceptual Responses in Reading Readiness

425.

HARRY SINGER
University of California, Riverside[1]

READING READINESS programs can be classified into two broad categories. The first, described by Sheldon (Sheldon and Durkin, 1963), is typical of some widely used basal reader readiness programs (Russell and Ousley, 1957; Gray, Monroe, and Artley, 1956; and Sheldon, Mills, and Mower, 1957), which stress perception of pictured objects, characters, environment, and oral language development. Many of the words used in this program recur in the primer and subsequent books in the series. Consequently, a laudable feature of this program is its curricular specificity since the content of the reading readiness program is extremely well articulated with subsequent basal reader instruction. Although all of the variables included in the basal reader readiness program provide a necessary foundation for subsequent reading instruction, an essential variable that is missing from these programs is instruction in the *perception of printed words.*

There is considerable evidence of the necessity for specific development of perception of *printed* words. In his classic study, Gates (1926) concluded that perception is not a unitary function because the intercorrelations among perception of numbers, geometric symbols, and printed words were quite low. The implication from his study appears to be that perceptual training on materials other than printed words is not likely to develop the ability to perceive printed words. For example, a pupil could become quite adept at perceiving and discriminating pictures of objects, but still be quite poor at word discrimination or word matching.

It is not ability to respond accurately to pictures or geometric forms, but perception of visual representations of verbal stimuli that is the best predictor in a reading readiness test battery for subsequent reading achievement at the first grade (Balow, 1963b; Barrett, 1965). When discrimination training is given on printed words, particularly those that will be met later in the reading program, there is likely to be positive transfer for recognition of these words (Staats, Staats, and Schutz, 1962). Therefore, if readiness for reading instruction is primarily the resultant of training, then these data imply that emphasis in reading readiness programs should at least be on the association of printed words to objects and actions.

Thus, there is empirical support for the second type of readiness program, an "exposure curriculum" (Durkin, 1962) in which perception of printed words occurs in conjunction with typical activities of the kindergarten curriculum (Durkin, in Sheldon and Durkin, 1963). Although the exposure curriculum adds perception of printed words to the skills usually taught in a reading-readiness program, it lacks the sequential specificity of instruction that is emphasized in the basal reader readiness program. Such sequential specificity is necessary, if a *structure* of reading ability is to be systematically developed (Bruner, 1963; Singer, 1965b).

Another important variable which should indeed be part of a reading readiness program is word symbol orientation. Many first grade children manifest faulty perception of printed words; they especially err by making reversals of all types (Potter, 1949). Several theories have been advanced to explain such reversals. Orton (1928) postulated faulty neural organization as the cause of strephosymbolia, literally "twisted symbols." Delacato (1959), essentially in agreement with Orton, ascribes the cause of such faulty neural organization to non-lateralization or mixed dominance, the result of inadequate or inappropriate motor development. The weight of evidence so far is against such neurological and motor theories as explanations of reversals or for poor progress in reading achievement. For example, laterality measured in the first grade is not predictive of reading achievement in either the first or second grade (Balow, 1963a; Balow and Balow, 1964). Furthermore, Potter (1949, pp. 59-60) reported that "some mediocre word perceivers, regardless of handedness, sufficiently improved their directional word perception orientation to become good readers during the first grade."

Another explanation can be postulated to account for some word reversals: since children encounter printed words in a variety of ways before formal reading is initiated (for instance, in grocery labels, intersection and store signs, television commercials, and in printed media in their homes), they may devise ineffective and inappropriate word perception techniques, including reversals, in responding to these printed words. Hence, earlier guidance in the appropriate left-to-right word orientation might reduce the degree of reversals observed in first grade pupils.[2]

Although reading readiness is frequently instituted at the beginning of first grade, there is no evidence that reading

[1]Travel funds for this paper were provided by the Academic Senate of the University of California, Riverside.

[2]This hypothesis is currently being tested (Singer, Balow, and Dahms, 1966).

673.

readiness should necessarily begin at first grade for all children. Some time ago, Morphett and Washburne (1931) reported that a mental age of six years and six months is necessary for a high percentage of success in initial reading instruction at the first grade level. But, their prediction probably holds true only for the particular reading program and criterion of success used in the Winnetka instructional plan of 21 graded steps. In comparison, Gates, Bond, and Russell (1939) found there are many factors involved in predicting reading readiness, only one of which is mental age. Balow (1963b) observed that a reading readiness test rather than an intelligence test is a better predictor of subsequent reading achievement. Several investigators have demonstrated that children could successfully begin reading instruction at an earlier age (Gates and Boeker, 1923; Davidson, 1931; Moore, 1961), and not necessarily on those children with high mental ages (Durkin, 1962). Indeed, it has already been demonstrated that at least some kindergarten children can profit from more advanced reading instruction than that which is usually given at the kindergarten level. For example, the McKee *reading* materials as compared with the Sheldon *reading readiness* materials, used in kindergarten on two groups of children whose IQ's averaged 112, was at least sequentially related to approximately three-fourths of a year acceleration when both groups were retested in grade two (Kelley, 1966).

Therefore, there is no valid reason for not initiating a reading readiness program at kindergarten and an even more advanced type of instruction for those kindergarten children who are precocious in reading achievement (Singer, 1965a). At least the range of individual differences in reading aptitude and achievement in knidergarten implies that differentiated instruction, which covers a range from "language development in a comparatively unstructured environment" (Sheldon, 1963, p. 17) to the inception of a developmental reading program, would be necessary if children in kindergarten are, in fact, to be *paced* rather than forced *or* delayed in reading (Olson and Hughes, 1944).

Although it is still a controversial issue (Sheldon and Durkin, 1963), reading readiness programs are being introduced at the kindergarten level (Gunderson, 1964). The debate seems to be shifting from whether reading readiness should begin at the kindergarten level to what should be the most appropriate type of reading readiness program to initiate at the kindergarten level. However, the instructional strategy proposed in this paper is not necessarily tied to the kindergarten level, but is appropriate for reading readiness whenever it is initiated. This instructional strategy of developing conceptual responses to printed words, of course, would then continue with appropriate modifications throughout reading instruction.[3]

## Conceptual Response to Printed Words

The rationale for the development of a conceptual response to printed words is consistent with the definition of a concept and an explanation of concept formation, as formulated by Russell (1956, pp. 117, 248-249): "Concepts develop out of related perceptual experiences. . . ." They are "the means by which a child or adult represents anything to himself and thereby creates a readiness to respond with a particular type of behavior." The process of concept formation involves "discrimination . . . plus generalization or response to common elements in object or situation, the percepts, memories, and images are integrated into a concept."[4]

A conceptual response in reading then can be defined as an intermodal communication system of ideas, percepts, memories, and images which are mobilized in response to the value-determined pur-

[3]There are already some materials which are quite appropriate for the development of a conceptual response to printed words at different grade levels. For example, at the kindergarten-first grade level, Udry's (1957) book, which won the 1957 Caldecott Medal, develops a conceptual response to the printed word, "tree." At the high school level, the concept of "courage" is clarified and enriched in Burton and Dunning's (1960) unit by having students read and interpret a variety of books on the theme of courage, such as *Profiles in Courage* and *The Red Badge of Courage.*

[4]A broad definition of "common elements" would include responses based on relational, conjunctive, and disjunctive categories (Bruner *et al.*, 1956) and transformational equivalents for integrating otherwise unrelated items (Bruner and Olver, 1963) such as the higher-order abstractions necessary for obtaining the central thought of a passage (Singer, 1964).

poses of the individual and the stimulus-demands of the printed word (Holmes, 1959; Athey, 1965). In this communication system, experiences acquired in one modality are "taught" to or associated with another modality, kinesthetic to auditory and auditory to visual. Thus, there can be an accumulation of developmentally acquired meanings which can be mobilized as a mediational response to printed word stimuli (Holmes, 1957).[5] Moreover, a conceptual response system formed at an early age would serve as an "advance organizer" (Ausubel, 1960) to facilitate subsequent learning and retention.

Development of such a transactional system (Davis, 1964) could and probably does occur in many pupils without specific instructional intent. However, the thesis proposed in this paper is that the development of a conceptual response system can be facilitated or accelerated by means of a *deliberate* instructional strategy. This strategy at the reading readiness level consists of the formation of kinesthetic, auditory, and visual associations to a class of objects in close temporal contiguity with each other and with the printed symbol which represents the objects. Perhaps the printed symbol could be displayed on the side of each object. Then, through discussion of experiences, visual perception and discrimination, manipulation of objects and actions on the objects, and tactual-kinesthetic perception of the stimulus features of the printed word with emphasis on the word's left-to-right order, the common elements in each modality could be abstracted and generalized. The strategy would thus include (a) all the variables listed in the reading readiness programs described by Sheldon and Durkin plus kinesthetic responses to printed words, *e.g.*, tracing over the word, and word symbol orientation, (b) association of these variables to each other and to their corresponding object class and printed word symbols, and (c) curricular specificity in which the printed word symbols are those which will also be presented in the next stage of reading instruction at which time pupils will be taught and expected to learn these words as "sight words." For example, a particular lesson may be about the concept "boat." The children will see a variety of actual boats or pictures of boats, talk about them and any characters associated with them, learn something about boats, discover what is true about all the boats, and see and perhaps trace over the printed word "boat" in association with these experiences.

As lessons progress, children could also have the opportunity to gain flexibility in mobilizing conceptual responses by switching from one conceptual organization to another, perhaps by forming two groups of objects that have previously been experienced separately and are now intermixed. The printed words which correspond with two sets of objects can serve as the basis for grouping the objects, with the original word identification on the objects removed.[6] This separation of the two groups could also provide a test of the attainment of a conceptual response.

At the reading readiness stage of instruction, however, no deliberate attempt would be made to have children remember and respond to printed symbols in isolation nor would any attempt be made to drill children on particular words. Therefore, this reading readiness program for developing conceptual responses can in no way be categorized as a formal reading program. Its objective at the reading readiness level is only to provide for the incipient development of a conceptual-response system in which experiences to a class of objects are associated with each other and with the printed word.

By presenting related elements of a

[5]The enactive, iconic, and symbolic categories of mental functions formulated by Bruner (1964) seem to correspond with the developmental stages of thought postulated in Piaget's (Inhelder and Piaget, 1958; Inhelder, 1963) theory of cognitive development. As these functions emerge, they could be integrated via a spiral-type of curriculum into an individual's conceptual response system for reacting to printed word stimuli.

[6]A variety of games and rhymes can be devised for conceptual organization in response to printed words. For example, Mrs. Shirley Marley, a kindergarten teacher in San Bernardino, California, uses a concept-formation technique in which children recite a refrain of "Barnyard, barnyard, what's in the barnyard?" as she flips over a picture showing another animal in the barnyard. In this lesson only the printed word would have to be added to the game to facilitate initiation of a conceptual response to the printed word.

word in close temporal contiguity to each other and their corresponding symbolic stimulus, this instructional strategy aims to provide the foundation not only for an integrated response system but also for interfacilitation among these elements. Subsequent perception and recognition of printed words as well as specific attributes of objects and words could be built upon this foundation (Bruner, *et al.*, 1956; Singer, 1965c). Thus word meaning or concepts could be emphasized along with criteria for word recognition. Such a reading program would certainly fit into a theory of human learning for teaching reading (Singer, 1965d).

A schematic diagram of one subsystem is presented in Figure 1. The diagram shows the various elements, such as percepts, images, memories, information, feeling tone, and other elements that can be mobilized as a conceptualized response to a printed word stimulus (Russell, 1956; Singer, 1960, 1965c).[7]

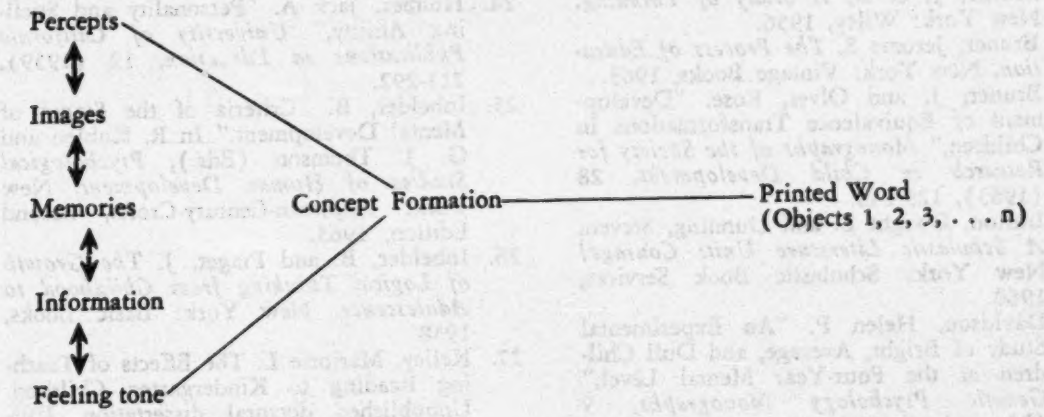



Figure 1. A subsystem of related elements mobilized as a conceptualized response to a printed word stimulus that represents a class of objects. (Modified, after Russell, 1956.)

This subsystem may be explained in terms of localization theory (Nielsen, 1951): engrams are developed in specialized areas of the brain which correspond to various components such as kinesthetic, auditory, visual images, and feeling tones for words. By presenting these components of a lesson in temporal contiguity to the printed word, a phase sequence of cell assemblies (Hebb, 1949) is developed in which the associated elements communicate with or "teach each other" (Holmes, 1957) and thus yield maximal interfacilitation in response to the printed word.

## Summary

The conceptualized response reading readiness program constitutes the first stage in the sequential development of an hierarchically organized working system that can be mobilized for attaining speed and power of reading (Holmes, 1953; Singer, 1962, 1965b). In this initial stage of reading readiness, each lesson is designed to contribute to the development of a subsystem or conceptualized response to the printed word.[8] This subsystem can be described as a communication system of mutual interfacilitation for responding to the printed word.

## References

1. Athey, Irene J. Reading-Personality Patterns at the Junior High School Level. Unpublished doctoral dissertation, University of California, Berkeley, 1965.
2. Ausubel, David P. "The Use of Advance Organizers in the Learning and Retention of Meaningful Verbal Material," *Journal of Educational Psychology*, 51 (1960), 267-272.
3. Balow, Irving H. "Lateral Dominance Characteristics and Reading Achievement in the First Grade," *Journal of Psychology*, 55 (1963), 323-328. (a)
4. Balow, Irving H. "Sex Differences in

[7]Waetjen (1963) has presented a *sequential* theory and diagram of reading readiness.

[8]A pilot study to teach and evaluate this reading readiness program is now under way. Treating reading readiness as an achievement variable, six reading readiness programs, including the strategy proposed here, are being compared at the end of kindergarten. Subsequent reading achievement of these groups will also be compared a year later at the termination of first grade (Singer, Balow, Dahms, 1966).

675.

First Grade Reading," *Elementary English,* 40 (1963), 303-306; 320. (b)
5. Balow, Irving H. and Balow, Bruce. "Lateral Dominance and Reading Achievement in the Second Grade," *American Educational Research Journal,* 1 (1964), 139-143.
6. Barrett, Thomas C. "The Relationship Between Measures of Prereading Visual Discrimination and First Grade Reading Achievement: A Review of the Literature," *Reading Research Quarterly,* 1 (1965), 51-76.
7. Bruner, J. "The Course of Cognitive Growth," *American Psychologist,* 19 (1964), 1-15.
8. Bruner, J. et al. *A Study of Thinking.* New York: Wiley, 1956.
9. Bruner, Jerome S. *The Process of Education.* New York: Vintage Books, 1963.
10. Bruner, J. and Olver, Rose. "Development of Equivalence Transformations in Children," *Monographs of the Society for Research in Child Development,* 28 (1963), 125-143.
11. Burton, Dwight L. and Dunning, Steven. *A Scholastic Literature Unit: Courage!* New York: Scholastic Book Services, 1960.
12. Davidson, Helen P. "An Experimental Study of Bright, Average, and Dull Children at the Four-Year Mental Level," *Genetic Psychology Monographs,* 9 (March-April 1931), 119-289.
13. Davis, F. "The Substrata-Factor Theory of Reading: Human Physiology as a Factor in Reading." In J. A. Figurel (Ed.), International Reading Association Conference Proceedings, Newark, Delaware: International Reading Association, 9 (1964), 292-296.
14. Delacato, Carl H. *The Treatment and Prevention of Reading Problems.* Springeld, Illinois: Charles C. Thomas, 1959.
15. Durkin, Dolores. "Reading Instruction and the Five-Year-Old Child." In J. A. Figurel (Ed.), *Challenge and Experiment in Reading.* Proceedings of the Seventh Annual Conference of the International Reading Association, 7 (1962), 23-27.
16. Gates, A. I. "A Study of the Role of Visual Perception, Intelligence and Certain Associative Processes in Reading and Spelling," *Journal of Educational Psychology,* 17 (1926), 433-445.
17. Gates, A. I. and Boeker, Eloise. "A Study of the Initial Stages in Reading by Pre-School Children," *Teachers College Record,* 24 (1923), 469-488.
18. Gates, A. I., Bond, G. L. and Russell, D. H. *Methods of Determining Reading Readiness.* New York: Bureau of Publications, Teachers College, Columbia University, 1939.
19. Gray, William S., Monroe, Marion, and Artley, A. Sterl. *We Read Pictures, We Read More Pictures, and Before We Read.* Chicago: Scott, Foresman, 1956.
20. Gunderson, Doris. *Research in Reading Readiness.* Bulletin No. 8, 1964. U. S. Department of Health, Education, and Welfare. Washington, D. C., Superintendent of Documents, Catalog No. 5.230: 30013.
21. Hebb, D. O. *Organization of Behavior.* New York: Wiley, 1949.
22. Holmes, Jack A. *The Substrata-Factor Theory of Reading.* Berkeley: California Book, 1953. (Out of Print)
23. Holmes, Jack A. "The Brain and the Reading Process." In Claremont College, *Reading is Creative Living, Twenty-second Yearbook of the Claremont Reading Conference.* Claremont, California: Curriculum Laboratory, 1957, 49-67.
24. Holmes, Jack A. "Personality and Spelling Ability," *University of California Publications in Education,* 12 (1959), 213-292.
25. Inhelder, B. "Criteria of the Stages of Mental Development." In R. Kuhlen and G. J. Thomson (Eds.), *Psychological Studies of Human Development.* New York: Appleton-Century-Crofts, Second Edition, 1963.
26. Inhelder, B. and Piaget, J. *The Growth of Logical Thinking from Childhood to Adolescence.* New York: Basic Books, 1958.
27. Kelley, Marjorie L. The Effects of Teaching Reading to Kindergarten Children. Unpublished doctoral dissertation, University of California, Berkeley, 1966.
28. Moore, Omar K. In Rowan, Helen, " 'Tis Time He Should Begin to Read," *Carnegie Corporation of New York Quarterly,* 9, No. 2 (1961), 1-3.
29. Morphett, Mabel, and Washburne, C. "When Should Children Begin to Read." *Elementary School Journal,* 31 (1931), 496-503.
30. Nielsen, J. M. *A Textbook of Clinical Neurology.* New York: Paul B. Hoeber, 1951.
31. Olson, W. C. and Hughes, B. O. "Concepts of Growth—Their Significance to Teachers," *Childhood Education,* 21 (1944), 53-63.
32. Orton, S. T. "A Neurological Explanation of Reading Disability." *Educational Record,* 20 (1928), Supplemental No. 12, 58-68.
33. Potter, Muriel C. *Perception of Symbol Orientation and Early Reading Success.* Teachers College Contributions to Education, No. 939, 1949.
34. Russell, David H. *Children's Thinking.* New York: Ginn, 1956.
35. Russell, David H. and Ousley, Odille. *Fun With Tom and Betty.* New York: Ginn, 1957.
36. Sheldon, William D. "Research Related to Teaching Kindergarten Children to Read." In Margaret Rasmussen (Ed.), *Reading in the Kindergarten??,* 1962-63 Membership Service Bulletin No. 6-A, Association for Childhood Educational International, 3615 Wisconsin Avenue,

676.

N.W., Washington 16, D. C.
37. Sheldon, William D. and Durkin, Dolores. "Should the Very Young Be Taught to Read? ("They should have the opportunity," says Dolores Durkin. "Harm might result," warns William D. Sheldon), *NEA Journal*, 52 (1963), 20-24.
38. Sheldon, William; Mills, Queenie; Mowrer, Rosalie. *Picture Stories Readiness Book I.* New York: Allyn and Bacon, 1957.
39. Singer, Harry. Conceptual Ability in the Substrata-Factor Theory of Reading. Unpublished doctoral dissertation, University of California, Berkeley, 1960.
40. Singer, Harry. "Substrata-Factor Theory of Reading: Theoretical Design for Teaching Reading." In J. A. Figurel (Ed.), International Reading Association Conference Proceedings. New York: Scholastic Magazines, 7 (1962), 226-232.
41. Singer, Harry. "Substrata-Factor Patterns Accompanying Development in Power of Reading, Elementary through College Level." In Eric Thurston and Lawrence Hafner (Eds.), *The Philosophical and Sociological Bases of Reading*, Fourteenth Yearbook of the National Reading Conference, 1964, 41-56.
42. Singer, Harry. "Substrata-Factor Evaluation of a Precocious Reader," *The Reading Teacher*, 18 (1965), 288-296. (a)
43. Singer, Harry *Substrata-Factor Reorganization Accompanying Development in Speed and Power of Reading.* Final report on Project No. 2011, U. S. Office of Education, 1965. (b)
44. Singer, Harry. "Conceptualization in Learning to Read." In Eric Thurston and Lawrence Hafner (Eds.), Fifteenth Yearbook of the National Reading Conference, 1965, in press. (c)
45. Singer, Harry. "A Theory of Human Learning for Teaching Reading: A Discussion of Professor Arthur Staats's 'Integrated Functional Learning Theory for Reading.'" In Albert J. Kingston (Ed.), *Use of Theoretical Models in Research*, Newark, Delaware: International Reading Association, 1965, in press. (d)
46. Singer, Harry; Balow, Irving; and Dahms, Patricia. Evaluation of Reading Readiness at the Kindergarten Level. Research in progress, supported by intramural funds from the Academic Senate of the University of California, Riverside, 1966.
47. Staats, Carolyn K.; Staats, Arthur W.; and Schutz, Richard E. "The Effects of Discrimination Pretraining on Textual Behavior," *Journal of Educational Psychology*, 53 (1962), 32-37.
48. Udry, Janice M. (Pictures by Marc Simont). *A Tree is Nice.* Harper, 1957.
49. Waetjen, Walter B. "Research on Learning Levels of Symbolization Needed for Formalized Learning." In Margaret Rasmussen (Ed.), *Reading in the Kindergarten??* 1962-1963 Membership Service Bulletin No. 6-A, Association for Childhood Education International, 3615 Wisconsin Avenue, N.W., Washington 16, D. C.

677.

# 2. The Relationship of the Oculo-Motor Efficiency of the Beginning Reader to Success in Learning to Read

STANFORD E. TAYLOR
Educational Developmental Laboratories
Huntington, New York

A LONGITUDINAL study under way at the University of Chicago Laboratory School is being conducted jointly by H. Alan Robinson of that institution and this author, in consultation with Miles A. Tinker, professor emeritus of the University of Minnesota.



## Plan of Study

The purpose is to investigate certain oculo-motor performances and achievements in reading by pupils as they progress over a four-year period. Originally, 122 subjects were included in the study, with 49 in kindergarten and 73 in first grade. The investigation was begun in October 1962. This interim report covers the time to February 1964, or one year and four months, and includes three testings: October 1962, April 1963, and February 1964. At this report 95 subjects remain in the study, 37 of the original kindergarten pupils and 58 of the original first grade pupils who are now in first and second grades, respectively.

In addition to the testing reported upon in this article, other tests administered are: (1) Lee-Clark Readiness Test, (2) Metropolitan Reading Test, Primary Level, (3) Metropolitan Reading Test, Elementary Level, and (4) a visual screening test on the Master Orto-Rater. Annual reports by the teachers are also made. The testing with which this report is concerned is eye movement photography conducted with the Reading Eye Camera using the EDL Eye Movement Photography Test Selections and the EDL Oculo-Motor Pre-Reading Performance Test. The latter consists of five cards containing pictures and dots while the Test Selections are stories.

Card No. 1 of the Oculo-Motor Test was a scene used simply as a sample to acquaint the child with the process of eye movement photography. Card No. 2 was a similar picture scene, which the child looked at with no stress on time. After 15 seconds the card was removed and the child asked to recall the objects seen. Card No. 3 contained two lines of five or a total of ten small pictures of objects which had previously been identified on a familiarization chart. Again the child looked and after 15 seconds recalled the objects seen. Card No. 4 presented ten dots in a pattern identical to that of the small pictures in Card No. 3. Now the directions to the child were to hurry across the dots as rapidly as possible without missing any. Card No. 5, the Motility Card, has two dots 3½ inches apart on a line, and the child was asked to look back and forth from one dot to the other as fast as he could.

The reading selections were graded fifty-word story paragraphs.

The number of fixations (eye stops) and regressions (reverse direction eye stops), the percentages of regressions (reverse and forward eye stops), and the durations of fixations (length of the eye pause) from one activity to another, in relation to the content of the card, provide insight as to the influence of the material being viewed and the adaptability of the viewer in following the instructions given. On Card No. 5, the Motility Card, the number of excursions he makes in a specified 15-second period of time indicates the amount of motility he has. The number of fixations per excursion he has indicates the accuracy with which he can fixate upon his target. The difference in these measures from testing period to testing period on the same cards yields information about the development of the child's oculo-motor capability.

On the second testing, in April 1963, all four cards of the above were repeated and a reading selection was also given to those children who could read. On the third testing, in February 1964, only the Motility Card No. 5 and a Reading Selection were given.

## Results

Attempts were made to photograph the eye movements of approximately fifteen per cent more children than the 122 included in the study, but these children could not hold their heads still enough to have their eyes photographed by the Reading Eye Camera. In the first testing, about two-thirds of the kindergarten children had eye movement photographs that could be analyzed for Cards No. 2, No. 3, and No. 4, but because of head movement and erratic ocular movements, about one-third for Card No. 5, the Motility Test with two dots. In contrast, slightly over one-half of the first grade children had photographs that could be analyzed for Motility Card No. 5, suggesting that greater ocular control accompanies maturation. Also, the

increasing percentage of children whose photographs could be analyzed on each successive testing further supports this suggestion.

On all tasks involving looking, regardless of the content of the cards, most children maintained constant ocular movement rather than prolonged pause or staring. The number of fixations during 15 seconds varied from 25 to 84, averaging close to 3 per second. The variation increased considerably during the first six months. The Reading Card produced the greatest variation in the number of fixations or eye pauses made.

In the length of fixations, the means of durations for all seeing tasks during the three testings varied from .266 to .344 of a second. Generally, kindergarten children had longer durations than first grade children. The fixations on pictures were longer than those on dots, where meaning was removed and when the children were directed to hurry. Most durations were shorter for reading than for pictures.

No children were without regressions, and fewer were made on the reading cards. No clear pattern of difference emerged between the picture and dot cards.

Most children employed more left-to-right movements than right-to-left on all cards, indicated by the percentage of regressions to the total number of fixations. This percentage ranged between 20.1 per cent and 45.7 per cent. Fifty per cent would, of course, indicate random activity. The lower percentages occurred on the Reading Cards, where the readers were probably influenced by the line of print presented to them. The means for reading varied for the groups at the two testings from 20.1 per cent to 26.2 per cent of regressions except for five children who were reading in late kindergarten and who ranged from 7 to 35 per cent.

The children varied greatly in the number of excursions they could make from dot to dot on the Motility Card No. 5, ranging from 8 to 60 in 15 seconds. Both kindergarten and first grade children increased their mean number of excursions from testing to testing, suggesting that ocular facility increases with maturation.

The accuracy of fixation was evaluated by the number of fixations per excursion on Motility Card No. 5. The means varied from 2.69 to 1.54 fixations per excursion, with steady decrease from testing to testing for both groups of children, again supporting the contention that ocular control increases with maturation and practice.

### Comparison of Performances by Same Subjects

Comparisons were made of the performance of the same individuals from one testing period to another. Only on the Motility Card No. 5 was there a statistically significant change in the number of fixations and durations of fixations, indicating a tendency to maintain a characteristic or habitual amount of ocular activity. During the third testing with Card No. 5 both groups reduced the number of fixations per excursion while increasing the number of excursions made between the two dots. In this instance, correspondingly, the durations were slightly lengthened.

The over-all lack of significant change in the mean numbers of regressions and the mean percentages of regression on Cards No. 2, No. 3, and No. 4 from the first to the second testing indicates persistence in established habits of directionality.

Further evidence of the growing control and accuracy in tasks of seeing is gained from the statistically significant decrease in the number of fixations per excursion together with the statistically significant increase in the number of excursions on Card No. 5.

### Comparison of Performance on Reading Card with that on Other Cards by Same Subjects

There was a statistically significant difference in mean durations of fixations between the Reading Card and only the Motility Card No. 5 at the second testing, this difference reversing itself at the third testing when the difference was less than significant. At the second testing the durations were longer during reading than during looking from dot to dot; at the third testing when increased accuracy of fixating upon target had been gained, the durations on Card No. 5 were longer than on the reading selection.



In measurements of left-to-right directionality during looking and reading, the Reading Card produced statistically significantly superior results over Cards No. 2, No. 3, and No. 4.

### Discussion of the Results

While the educational importance of the results cannot be completely established until the study has been completed and all of the data interrelated, certain conditions have come to light from an inspection of the data gathered to date.

1. An overview of the data points to the presence of certain oculo-motor habits in the beginning reader, habits undoubtedly born out of accumulated looking experiences prior to entering school. It would appear that the beginning reader tends to employ and modify these ocular habits in learning to read.

2. The beginning reader appears to perceive, not through lengthy staring or through greatly varying eye pauses that would reflect the perceptual complexity of the material to be assimilated, but rather through a series of short and seemingly habitual pauses, lasting approximately .33 of a second, or about three eye stops per second.

3. The beginning reader does not appear to possess a high degree of ocular control nor a great amount of ability to direct his eyes with accuracy, even when consciously attempting to do so.

The above points cannot help but create one question in the minds of this investigator: In beginning reading, where a word is identified and recognized not in a single eye stop but rather as a result of a series of overlapping retinal impressions, effected by an oculo-motor mechanism that is not precisely controlled, what is the characteristic nature and quality of the resultant word impressions received by the beginning reader?

218.

Vol. 8, 63



## 3. Readiness for Beginning Reading

AGATHA TOWNSEND

The introduction of most kindergarten-primary teachers to the concept of reading readiness has long been dominated by child development theories. Consider, for example, the classic statements that a mental age of about six years and six months, probably a chronological age of about six years, the ability to perceive visually and to discriminate among various printed forms, the ability to perform in accordance with accommodation and convergence requirements, to adjust to the right-left sequence, to hear and reproduce different language sounds, the ability to conceive of printed symbols as representing spoken sounds and of spoken sounds in their turn as representing objects, actions, or feelings—that all these requirements must be attained for initial success in reading. In addition, as most first-grade teachers know, there is a pretty strong feeling that the pupil had better be a girl, as there is a good deal of wasted time involved if he is a boy.

Such rigorous standards present a number of difficulties. It can, for instance, be demonstrated that most of them are not sustained experimentally. Children with mental and chronological ages below six have learned to read in many languages. Visual requirements are less stringent if early reading makes more use of distance vision, and so on. But the real problem of overemphasis on developmental factors is that the teacher is led to the conclusion that one of her most effective procedures is to stand by until nature presents her with a more mature organism. If this should sound overdrawn, remember that communities have considered delayed entrance for boys, and that teachers have tried deferring instruction for groups, holding many at readiness or preprimer levels so long, indeed, that much priceless motivation has dissipated. The real problem lies, not in the accuracy or inaccuracy of developmental standards, and certainly much research is still needed in further defining them, but in the indoctrination of the teacher that time, not she herself, is in charge of readiness.



### Can Intellectual Development Be Taught?

The factors of intellectual development provide an excellent illustration of an area in which emancipation of thinking will pay immediate dividends. Once freed from the bugaboo of mental age, let us inquire into the real demands on mental maturity and see how they can be met. Nearly 25 years ago, Arthur I. Gates demonstrated that skillful attention to individual pupils and equal attention to good instruction greatly reduced the correlation between mental age and reading success.[1] Perfunctory instruction demands far more of the child than it does of the teacher.

The manipulation of language requires both a background of experience to express and a stock of speech with which to represent it. Even a sensitive measure of mental maturity like the verbal portions of the Binet or the WISC demands preliminary acquaintance with the words described or defined. The kindergarten child grows more from a trip to the playground or the mailbox *which he later talks about* and sees his teacher record and read back to him than he does from drill on making letter forms which do not say anything to him. It is harder for an adult to learn nonsense syllables than it is to remember a poem. Yet the slum child is asked to make sense out of the typically suburban primer with house, yard, and pony.

The impetus of the human child is to express what he sees, hears, handles, or smells. On the one hand, we need to make sure he has the vocabulary, and that he learns to tell about his experiences so that others understand and are interested. Good language usage patterns must be instilled. On the other hand, one kindergarten teacher spent day after day training her children to describe in complete sentences how they hung up their coats and caught their balls. Admittedly, the children who "hanged up" their coats and "catched" their balls needed more mature speech patterns, but is either experience worth communicating time after time to the line waiting behind to repeat the self-same sentence?

### Can Physical Requirements Be Met?

If the intellectual standards for beginning readers are broad, the physical standards may seem more specific. What, the teacher may ask, can she possibly do about the pupil whose visual or auditory capacities are immature? At the risk of sounding critical, the answer may be given that if she even attempts to take the physical demands of reading into account, she will be an outstanding teacher indeed. To tell the truth, little more than lip service is given to physical aspects of readiness in most schools, and most activity in this field is confined to measurement rather than instruction.

Reading as a visual task concerned Robinson and Huelsman,[2] who take the conservative view that at least four essential abilities are: binocular acuity, coordination of the eyes, accommodation, and convergence. Other investigators confirm these findings and, of course, some believe a large variety of visual abilities, trainable or not, are of importance. But, as Spache points out, the usual school screening is based on "a wall chart which measures acuity as if the eyes were used separately, and only at the irrelevant distance of twenty feet."[3]

Visual discrimination implies the functioning of abilities to see similarities and differences which will be applied in word recognition and recall. Frankly, there seems to be some value here in maintaining the "face validity" of training materials. In short, word and letter forms can be used to give practice in both total configuration and detail, with encouragement to discuss and generalize on what is seen. Such methods do not require the teacher to assume that matching geometrical forms is the same as matching letters, and furthermore avoids extraneous vocabulary problems like the naming of an "oblong" or "rectangle"—an activity

[1] Arthur I. Gates, "The Necessary Mental Age for Beginning Reading," *Elementary School Journal*, 37 (Mar. 1937), pp. 397-408.

[2] Helen M. Robinson and Charles B. Huelsman, "Visual Efficiency and Learning to Read," *Clinical Studies in Reading, II*, Supplementary Educational Monographs, No. 77. Chicago: University of Chicago Press, 1953, pp. 31-63.

[3] George D. Spache, *Toward Better Reading*. Champaign, Ill.: Garrard Publishing Co., 1963, p. 3.

680.

which might be left to the New Arithmetic part of the program. In addition, since the right-left sequence is inherent in reading, though not in geometry, words and phrases are logical referents.

Auditory acuity and discrimination is also neglected, even in schools which attempt to capitalize on their supposed attention to phonics. Without doubt, the complexity of our language and the neurological difficulty of apprehending differences in sound combine to make hearing sound and associating it with visual symbols a task requiring real maturity. The task of the teacher is to see that her exercises are graded so the child does not lose track of the sounds she presents, and so that he becomes more skillful in distinguishing words and phrases—not just isolated sounds. Certain exercises are rendered worse than useless because neither teacher nor pupil fully understands the directions. Other auditory materials are graded according to formal logical rules which take no account whatever of the psychological difficulty. Just because of a conviction that pupils should hear all long vowel sounds, the teacher may spend hours on certain letters, asking the youngster to make discriminations which will still be hard for him when he is a fourth-grader.

No matter what the emphasis on detailed auditory discrimination, the teacher should remember that hearing also implies listening, with concomitants of attention and participation. While many kindergarteners are talkative, cheerful, too many first grades are altogether too quiet! The child must hear his own speech if he is to develop an ear for language; oral reading does not take the place of storytelling, and in fact may inhibit the growth of more complex usage patterns. The simplified reading vocabulary may induce the teacher to neglect oral vocabulary, and some first and second graders actually seem to slow up in word acquisition.[4] Any adult who has studied a foreign language will recall a stage when his very thinking was restricted because he did not have the foreign words with which to express his adult thoughts. Do we run the risk of reducing the child's thought to simple declarative sentences of controlled word content?

## Is the Teacher Ready to Teach Reading?

It is more than a turn of phrase to suggest that the teacher's own readiness is at stake in the early part of the reading program. The first step toward control of pupil readiness is its study and recognition. The teacher must be ready to abandon the simple generalizations about age and IQ, and turn instead to a thorough study of each child and his individual advantages and limitations.

For some children, the teacher's most important findings will be in the area of emotionality. We are accustomed to the complex role of emotions in reading problems. The teacher of beginning reading has opportunities, never to be repeated, to avoid these problems by positive action. How much reading failure is invited when the pupil's intense desire to read is thwarted from the very start? This can happen through a program of too little substance, which does not let the child advance quickly enough, or a readiness program which is so dull and repetitive that the child who needs much readiness support simply dissociates himself from it and believes he is already left behind.

Both emotional and intellectual needs differ from group to group. Research has long recognized the maturity differential between boys and girls. Research is now recognizing, also, the fact that many boys who are retarded in reading adopt the point of view that it is a feminine activity, in which success may even be a threat to their masculinity.[5] We need research now to put these two facets of the "boy-problem" together. A glance at the usual basal readers seems to confirm the impression of our pupils—the material is pretty innocuous—not to say prissy. Is the teacher ready to scuttle some of the primers in favor of the fascinating trade books with greater boy-appeal? Is she even ready to experiment along the lines of some of the

[4]Althea Beery, "Development of Reading Vocabulary and Word Recognition," *Reading in the Elementary School,* 48th Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, pp. 172-192.

[5]Albert J. Mazurkiewicz, "Social-Cultural Influences and Reading," *Journal of Developmental Reading,* 3 (Summer, 1960), pp. 254-263.

681.

Los Angeles schools now trying separate reading periods for boys?[6]

What teacher does not gladly adjust to the fast learner? Frequently, the kindergarten teacher is faced with a child who has already learned to read. Shall this child be sent on to the first grade forthwith? Is the first-grade teacher ready to meet another good reader and use his delightful ability, leading him into independence as rapidly as he will go, no matter what strictures exist that the first-grader must not go on beyond the 1-2 reader and with something for him to read besides "an alternate basal"?

We need teachers ready to break free of publishers and their elaborate snares. How hard it is to resist a series of four preprimers, each with a different colored workbook, two primers, each with exercises, two first readers and supplements *ad infinitum*. No wonder the teachers say there is too much to be done in the first grade. How much is really supplying needed readiness for the slow group? And how much is nothing more than a classroom convenience, a way of keeping twenty children quiet while six bluebirds are reading?

Original thinking is a lot to ask, whether the thinking is directed toward individual differences among children, selecting among published materials, or organizing the class. But good preparation for reading asks for creativity in all these areas. Perhaps the greatest problem in securing flexibility from the teacher lies in her own feeling of security within the framework of the basal program and her discomforture outside of it. Yet emotional and intellectual readiness demands it, and social needs fairly beg for teacher inventiveness.

If there is any one great new demand, it is for more social awareness in our classrooms. Much early failure in reading, to be sure, comes because of the inevitable conflict of the standardized school expectations of the teacher and the greatly varied expectations of the homes and neighborhoods from which the children come. We talk of the great drive of the first-grader to learn to read at once.[7] But many first-graders come from homes where a book or even a magazine or newspaper is never seen. Our primers reflect behavior and living habits which are an affront to the urban child. No wonder that reading, which should be, of course, an agent of social mobility, as well as an unparalleled inner resource for such children, takes place on a level of unreality which leaves it impotent. This new task may be the hardest of all for the well educated, sensitive teacher, but it is one she must assume if she is to build readiness for success.

[6]Jo M. Stanchfield in an unpublished paper, "An Analysis of the Effects of Homogeneous Sex Groupings upon the Achievement of Boys in a First-Grade Reading Program," presented at the Sixth Workshop in Reading Research sponsored by The Committee on Diagnostic Reading Tests, Inc., at Boston, Mass., April 9, 1963.

[7]An excellent discussion of the low self-concepts of minority groups is included in the report by Wm. F. Brazziel and Margaret Gordon of "An Experiment in Reading Remediation in a Culturally Disadvantaged School Population of a Southern Junior High School," presented at the Sixth Workshop (op.cit.) and to appear in the *Journal of Negro Education*.

682.

219.



Vol. 9, 64

## 3. The Audio-Visual Approach in Reading

ELIZABETH ALENICK

I SHOULD very much like to acquaint you with an interesting study in which we have been involved during the past three years—The Audio-Visual Approach in Reading.

In the spring of 1961, the study was initiated in a first-grade class in each of three schools located in socially-disadvantaged neighborhoods and then extended in September, 1963 to 11 schools involving 15 teachers of 15 classes in grades 1 and 2. We do not plan to extend the study beyond the second grade.

I. WHAT IS THE AUDIO-VISUAL APPROACH IN READING?
The audio-visual approach in reading utilizes selected filmstrips and recordings to improve the reading program in the primary grades.

II. WHAT ARE THE OBJECTIVES OF THIS PROGRAM?
- A. To demonstrate the effectiveness in developing listening and speaking skills as well as concepts basic to readiness.
- B. To demonstrate the effectiveness of selected filmstrips and recordings in improving the level of reading achievement in the primary grades.
- C. To demonstrate the effectiveness of using audio-visual materials and techniques in large-group instruction and in building independent work habits.
- D. To create an intensive motivation for learning to read in the primary grades through the use of correlated audio-visual and printed materials.

Our teachers spend three to six weeks in reading stories to the children, having the children view the pictures in the stories through filmstrips, encouraging children to retell the story as each frame is shown, encouraging children to talk about details in the picture as the frames are shown, explaining concepts with which the children are unfamiliar, *listening* to likenesses and differences in beginning sounds of words used in conversation or in the experience chart, *listening* to recordings and enjoying the story and the background music, *seeing* the story written on the chalkboard or experience chart, seeing the stories in their own words written in a storybook which may be duplicated for all to own and which may be taken home, *sharing* the class storybook, *operating independently* the phonograph, the filmstrip machine, the desk viewer, and many, many more learnings.

All this listening, speaking, learning, we believe, helps to bridge the gap and to give children in disadvantaged areas the compensatory exposure to material with which the children in more favored areas are equipped. We know that children so equipped have been helped to catch up; the slack, in some measure, has been taken up and these children have been given the spark of positive motivation to enable them to accept the highly abstract reading process. There can be much learning without reading which can motivate children to *want to learn to read*.

The children, after weeks spent on our audio-visual approach, *can* read the pre-primers and can go right into the primer of the basal reading series being used in the school. Our children have been exposed to all pre-primer words experientially and have accepted them and made them their own.

III. WHAT MATERIALS AND EQUIPMENT ARE USED?
- A. Materials provided for project teacher:
  1. Basal readers
  2. Filmstrips related to these basal readers; i.e., stories, reading readiness and phonics filmstrips emphasizing word-attack skills
  3. Workbooks for these basal readers
  4. Rebus cards, word cards, phrase and sentence cards and large pictures correlated with the basal readers
  5. Picture dictionaries and other dictionaries
  6. Trade books
  7. Filmstrips correlated with trade

683.

books
8. Filmstrips related to social studies content
9. Pocket charts

B. Equipment
1. Phonographs with adaptors
2. Earphones
3. Filmstrip projectors (for class use)
4. Overhead projectors
5. Filmstrip Desk Viewers (for individual use)
6. Filmstrip Desk Viewers with desk-size screen (for group use)
7. Tape recorders

IV. HOW ARE THESE MATERIALS UTILIZED WITHIN THE CLASSROOM?

The teacher may use a varied approach:

A. The record and the filmstrip of a story are presented to the entire class. Class discussion and interpretation follow.

B. The audio-visual presentation of material is utilized by the teacher to increase oral language ability, concepts, and sight vocabulary.

C. The filmstrips in conjunction with the basal reader in the series, are used to introduce and reinforce phonics and word-attack skills and to present the new vocabulary.

D. Comprehension skills are developed through questions by the teacher when the pictures and text are presented on the screen.

E. Tape recorders are used by the Non-English Speaking Coordinator when necessary, to tape the stories in Spanish, teach the concepts in Spanish, and then translate them into English

F. The trade books are always in the classroom library to be read to the children or to be handled by the children.

V. WHAT PROVISIONS ARE MADE FOR A CONTINUOUS EVALUATION OF THIS PROGRAM?

A. Class Log.

B. Formal Evaluation
1. The New York Reading Readiness Test (the first week in October).
2. The basal reader readiness test (the first week in October), if this test accompanies the series.
3. The basal reader achievement reading test (the end of the school year).

C. Informal Evaluation
1. The teacher, through daily observation, continuously evaluates and diagnoses her children's reading growth and reading needs.
2. The Informal Textbook Test is administered to each child at the end of the school year.

D. Profile Sheet—Teachers Keep a Class Profile Sheet with data concerning the physical, emotional, social and intellectual characteristics of each child.

E. Meetings—All teachers, supervisors, reading consultants and related personnel meet regularly to evaluate the progress made.

F. Intervisitation—A small part of the regular conference is devoted to visiting the project teacher's room and observing the physical organization of her room and the materials she develops.

G. Supervision—A supervisor in each school is designated to direct the program in his school.

H. Other personnel, such as Reading Consultants, Field Consultants in Early Childhood, Supervisors of the Bureau of Audio-Visual Instruction, and Corrective Reading Teachers give consultant service.

VI. WHAT SUGGESTIONS ARE MADE FOR CREATIVITY IN THIS PROGRAM?

A. Dramatize the story in the filmstrips.

B. Have children retell the story in their own words as each frame is shown.

C. Have children dictate stories about the filmstrips.

D. Make a book of your children's original stories and drawings. This book can be added to the class library.

E. Occasionally show the textfilms on the chalkboard.

F. Art work can be related to the filmstrips.

G. Compose songs related to the filmstrip story using original tunes.

VII. WHAT PITFALLS SHOULD BE AVOIDED AND WHAT SUGGESTIONS CAN BE FOLLOWED IN USING THIS PROGRAM?

A. Avoid introducing every new story and its accompanying filmstrip in the same way.

B. Avoid overexposure to each of the materials; i.e., the showing of filmstrips daily.

C. Avoid routinization in follow-up activities; i.e., constantly writing experience charts or "stories" about the filmstrips after the viewing of them.

D. Avoid using one audio-visual procedure, exclusively, for the development of certain lessons.

E. Avoid the teaching of too many lessons based on the same filmstrip or recordings.

F. Avoid the temptation of showing more frames, in a textfilm, than the children's attention span will tolerate.

G. Avoid allowing the children to remain inactive while instructional filmstrips are being shown.

H. Make certain machines, shades, etc., operate properly before actual classroom use.

I. Use some filmstrip more than once.

J. Plan carefully. (Make the material fit the lessons, rather than the lesson



fit the material.)

K. Be flexible.

L. Follow-up activities after the showing of a filmstrip must provide for individual differences among children in the class.

M. Establish goals in advance and utilize materials to fulfill these goals.

VIII. WHAT PROVISIONS ARE MADE FOR THE SLOW CHILDREN?

A. Individualization of instruction.

B. Small-group instruction in word-attack skills.

C. Individual help by the Corrective Reading Teacher.

D. Individual help by student teachers.

The Audio-Visual Approach in Reading is a self-motivating program making use of good teaching techniques. The filmstrips complement, rather than substitute, the reading program. Often beginning readers become so interested that they feel encouraged to read the books for themselves, and so they discover that books can be so much fun

We firmly believe this program gives: (1) an initial, positive impetus to reading, (2) a positive motivation to reading from the printed page, and (3) a third dimension to the reading process.

220.



Vol. 10, 65

## 2. First Grade Reading Studies: Implementation

GUY L. BOND
University of Minnesota

THE TEACHING of beginning reading continues to be a popular subject for debate among reading experts and lay persons alike, even though a great deal of research has been devoted to the problem. There are still a number of controversies concerning instructional procedures in beginning reading. For example, the issue of the relative emphasis which should be given to phonics and more diversified teaching methods is still a lively topic. Controlled research comparing the two methods, however, has been practically nonexistent because of the general agreement among reading experts that a combination of these methods is essential. As a result, pure phonics programs are difficult, if not impossible, to find and the controversial issue of phonics OR diversified methods has been largely relegated to the popular press. Research interest in the area is now focusing on not whether or not phonics should be taught but how they should be taught, to what extent, and to what kinds of pupils. Or more exactly, the focus is now on how the many meaning, phonetic structure, and rapid perceptual aids to word recognition can be most efficiently taught to pupils of varying capabilities and linguistic backgrounds.

Current debate, for instance, centers on the relative efficiency of teaching phonics and other word recognition aids by means of what have been termed the synthetic and analytic approaches. In the synthetic method the child learns the regular graphemic representations of sounds and then is helped to synthesize the sounds into words. The analytic method on the other hand proceeds from an analysis of the whole word which is then broken up into its pronounceable units. A longitudinal study was reported by Bear who compared matched groups of first-grade pupils who were taught by the analytic and synthetic approaches to phonics.[1] In this study seven classes of first-grade children were taught phonics using the Hay-Wingo program, a synthetic program in terms of the definition above, and seven comparable classes were taught beginning reading using the analytic approach to phonics as outlined in the manuals of the Row-Peterson basal program. The two groups used the same basal reading series, the Row-Peterson materials, with the only difference being in the approach used to teach phonics. At the end of one year of instruction in reading, differences in performance on the Gates Primary Reading Tests and the Metropolitan Achievement Test favored the group using the synthetic approach to phonics. A follow-up study of the pupils after they had completed the sixth grade found that the group which had utilized the synthetic method of phonics in the first grade was significantly superior in performance on the vocabulary section of the Gates Reading Survey although no differences were found between the groups on the Comprehension and Speed sections of the test.

On the other hand, a study reported by Morgan and Light appears to contradict these findings.[2] Using randomly selected groups of fifty boys and fifty girls from two schools, one school of which used the Phonetic Keys to Reading while the other

[1]David E. Bear, "Two Methods of Teaching Phonics: A Longitudinal Study," *The Elementary School Journal*, LXIV (February, 1964), pp. 273-279.

[2]Elmer F. Morgan, Jr. and Morton Light, "A Statistical Evaluation of Two Programs of Reading Instruction," *The Journal of Educational Research*, LVII (October, 1963), pp. 99-101.

685.

used the Scott-Foresman basal program, the investigators compared reading progress in the third grade. Results of testing with the Gates Reading and California Achievement tests favored the Scott-Foresman basal materials with its analytic approach to phonics. These two studies reflect the lack of unanimity among research findings concerning the proper way in which to teach phonics and the amount of emphasis to devote to this aspect of a word recognition program.

Recent attention in beginning reading has revolved around the issue of how to attack the problem of best preparing children to cope with the many inconsistencies in phoneme-grapheme relationships in English. In the recent past, reading materials generally have been produced with little attempt to control beginning vocabulary from the standpoint of sound-symbol relationships. There has been little effort to introduce only those words whose sounds are represented more or less consistently in writing. In the past few years, however, interest has been renewed in the possibility that a major reason for early difficulties in reading is the relative inconsistency of our alphabetic code for transcribing speech. Bloomfield and Barnhart have attempted to simplify the process of learning to read by introducing in the early stages of reading only regularly-represented words.[3] Fries has prepared beginning reading materials of a somewhat similar nature.[4] Research is needed to determine whether or not this control of vocabulary is wise in light of the multitude of inconsistencies which the child will encounter in later reading. Sister Mary Edward attempted to find some preliminary answers to this question by comparing groups of fourth-grade pupils from the parochial schools of Detroit, Michigan and Dubuque, Iowa.[5] The Dubuque schools used a composite basal method alone while the Detroit system utilized a modified linguistic method in addition to a composite basal approach. When measured by a variety of reading tests at the beginning of the fourth grade, the group using the linguistic materials in addition to the basal program performed significantly better on a majority of the tests. However, the question of whether or not materials with only "regular" words such as the Bloomfield-Barnhart materials should be used as the basic program in beginning reading instruction has not been adequately investigated.

Another system designed to simplify the task of learning to read by removing many phoneme-grapheme irregularities is Pitman's Initial Teaching Alphabet currently being used experimentally in England and the United States. Most of the research evidence to this point has come from England where the experimental program is now in its third year. Downing reports superior reading progress attained by pupils whose instruction has been in the Initial Teaching Alphabet.[6] However, many unanswered questions also remain with respect to this approach to initial reading instruction. For one thing, how much of the success can be attributed to the novelty of the program and to the enthusiasm of the teachers involved in the project? Then too, what will be the long-range effect of teaching a child to read by means of this medium? It seems imperative that further controlled research involving i/t/a be initiated.

Other interested researchers are working with programs which are designed to make maximum provision for individual differences. Much has been published on the relative merits of "individualized" reading *versus* basal reader programs, but the findings of the various studies conflict with one another. In addition, experimentation is now under way in which programed materials are utilized as a basic learning device. Research is necessary in both areas.

Another problem that is being studied is the extent to which other language experiences should be incorporated into the nature of reading instruction. Here again the problem is not one of the inclusion of listening, writing, and speaking skills into a reading program but rather the extent

[3]Leonard Bloomfield and Clarence L. Barnhart, *Let's Read* (Detroit: Wayne State University Press, 1961).

[4]Charles C. Fries, *Linguistics and Reading* (New York: Holt, Rinehart and Winston, Inc., 1962).

[5]Sister Mary Edward, "A Modified Linguistic Versus a Composite Basal Reading Program," *The Reading Teacher,* XVII (April, 1964), pp. 511-515.

[6]John Downing, "Teaching Reading with I.T.A. in Britain," *Phi Delta Kappan,* XLV (April, 1964), pp. 322-329.

686,

to which they should be included and whether or not they can be made the basis of a somewhat permissive approach to reading instruction and also the characteristics of the children who can profit most from this approach.

This discussion has in no way attempted to exhaust the areas of research interest in beginning reading instruction. It has attempted to point out some of the newer ideas which warrant investigation. Unfortunately, most of the research has been conducted in a piecemeal fashion by independent investigators and as a result, generalizing from the results of the studies has been difficult for a number of reasons:

1. Independent studies have utilized different types of populations, many of which were not representative of the first-grade population as a whole.
2. Independent investigators have used different test instruments to measure reading readiness skills and subsequent reading achievement.
3. The extent to which investigators have controlled such factors as experiential background of children, class size, teacher competence, enthusiasm for the particular teaching method employed, and other extraneous variables has varied from study to study.
4. Research designs and methods of statistical analysis have varied from study to study.
5. Inappropriate design of some studies has made clear-cut interpretation of results impossible.
6. Standardized tests, especially at the elementary level, are inadequate for measuring all anticipated outcomes of reading instruction; nevertheless, these tests are often the sole criterion measures utilized.

Donald Durrell has traced the historical background that led to the invitation by the Cooperative Program of the United States Office of Education for research proposals in the area of first grade reading. Each of the seventy-six proposals submitted were reviewed by the Research Advisory Council which selected twenty-seven for support up to a $30,000 per study limitation. The projects were selected on the basis of their individual merit as self-contained studies which would have unique characteristics and at the same time be directly related to the problems and differing points of view apparent in initial reading instruction. They were also selected so that in total scope a more massive body of information about various approaches to reading instruction could be obtained for further combined analysis than has ever been possible in the field of reading.

The individual projects selected give a broad variety of experimental variables dealing with problems of first grade reading needing scientific study by means of controlled experimental designs. They also give the opportunity of studying the efficiency of the approaches in a variety of school populations and instructional conditions. The list of the experimental variables being studied indicates the scope of the enterprise and the number of individual projects in which each variable is included as one of the several experimental variables.

| | |
|---|---|
| Basic Reading | 24 |
| Language Experience | 12 |
| Phonetic Emphasis | 6 |
| Linguistic Emphasis | 6 |
| Initial Teaching Alphabet | 5 |
| Individualized Reading | 4 |
| Reading Readiness | 4 |
| Audio-Visual | 4 |
| Role of Teacher Supervisor | 4 |
| Approaches for Culturally Different | 5 |
| Other approaches | 7 |

The areas of the United States in which the studies are located gives evidence as to the variety of situations in which the relationships between the experimental variables and growth in reading are being studied. In each area an attempt to get an unbiased sampling of children, teachers, and economic circumstances for each experimental variable group has been made. The range of situations and rigor of controls is quite apparent to one who has had the good fortune to visit the independent research projects. A list of the directors of the projects is given below to indicate the regions of the United States in which the independent studies are being conducted.

Elizabeth Ann Bordeaux, Goldsboro, N. C. (City Schools)
Jeanne S. Chall, City University of New York
Donald L. Cleland, University of Pittsburgh
Edward Fry, Rutgers—The State University, N. J.
Harry T. Hahn, Oakland Schools, Pontiac, Michigan
Albert J. Harris, City University of New York
Robert B. Hayes, Department of Public Instruction, Harrisburg. Pa.
Arthur W. Heilman, Pennsylvania State University
Thomas D. Horn, University of Texas
William M. Kendrick, San Diego County Department of Education
James B. Macdonald, University of Wisconsin
John G. Manning, Fresno State College
Sister M. Marita, Marquette University
Albert J. Mazurkiewicz, Lehigh University
Roy McCanne, Consultant, Colorado State Department of Education
Katherine A. Morrill, Moses Y. Beach School, Wallingford, Conn.
Helen A. Murphy, Boston University
Olive S. Niles, Springfield Massachusetts Public Schools
Hale C. Reid, Cedar Rapids, Iowa Public Schools
Robert B. Ruddell, University of California
J. Wesley Schneyer, University of Pennsylvania
William D. Sheldon, Syracuse University
George D. Spache, University of Florida
Doris U. Spencer, Johnson State College, Vermont
Russell G. Stauffer, University of Delaware
Harold J. Tanyzer, Hofstra University
Nita M. Wyatt, University of Kansas
Guy L. Bond, Coordinating Center, Univeresity of Minnesota
Robert Dykstra, Coordinating Center, University of Minnesota

The First Grade Reading Studies are, in fact, twenty-seven independent studies so well coordinated in research design, instruments of measurement, information gathered, and comparability of data collected, that comparisons among the studies will be possible in ways that have not previously existed. The most unique characteristic of the First Grade Reading Project is that it can also be considered one large study since all of the data obtained in the twenty-seven individual studies will be fed into the Coordinating Center for further analysis, enabling the testing of many hypotheses that are not within the scope of any one of the independent studies nor in any comparison of the findings between any of the studies.

The list of common data given below indicates the type of information that will be available for the detailed study of the total analysis. These appraisals were chosen by the directors of the individual projects at conferences conducted by the Coordinating Center. In addition to these common data, each project will submit to the Coordinating Center all the unique data collected. Many studies will have overlapping unique appraisals that will increase the scope of observation available for study in combined analyses.

### Common Data to Be Gathered in Each Study

1. About the Child
   - Sex
   - Chronological Age
   - Mental Age (Pintner-Cunningham)
   - Ethnic Group
   - Amount of Pre-First Grade School Experience
   - Number of days absent during the experimental period
2. Initial Test Data
   - a. From the Murphy Durrell Readiness Test
     - Phoneme Identification
     - Capital Letter Identification
     - Lower Case Letter Identification
     - Learning Rate Score
   - b. From the Thurstone Tests
     - Pattern Copying
     - Identical Form Recognition
   - c. From the Metropolitan Readiness Test
     - Word Meaning
     - Listening
3. About the teacher
   - Sex
   - Age

- Degree Held
- Type of Teaching Certificate
- Years of Teaching Experience
- Experience Teaching First Grade
- Marital Status
- Number of Her Own Children
- Score on San Diego Teacher Attitude Scale
- Number of Days Absent During the Experimental Period
- Teacher Rating by Supervisors

4. About School Policies
   - Number Enrolled in Class
   - Length of School Day
   - Length of School Year
   - Number of First-Grade Rooms in Building
   - Number of First-Grade Rooms in District
   - Type of Library Facilities Available
   - Per Pupil Costs
5. About the Community
   - Median Education of Adults
   - Median Income
   - Population
   - Type
6. Final Test Data
   - Stanford Achievement Test
   - San Diego Measure of Attitude Towards Reading
   - (Certain other measures will be used for uniform samples from the population in each project.)
   - Gilmore Oral Reading Test
   - Gates Word Pronunciation Test
   - Fry Test of Phonetically Regular Words
   - Creative Writing Sample
     1. Quality
     2. Creativity

The purposes of the coordinating center are, in general, to maintain communication between the various projects, to provide services for the individual projects, and to assemble, collate, analyze, and interpret the inter-related data which the directors of the individual projects have agreed to make available.

The directors of the coordinating center recognize that the directors of the individual projects must be left free to study, analyze, and report the unique phases of their projects. The coordinating center directors are further aware of the need for working cooperatively with the individual project directors if the tremendous possibilities of the combined research program in first grade reading instruction are to be realized fully. The coordinating center, therefore, is an implementing agency dealing with the combined enterprise in full cooperation with the individual project directors.

The coordinating center's major purpose is to assemble, analyze, and interpret the combined data secured from the individual projects. It is the intention of the directors of the coordinating center to enlist the services of individual project directors as consultants in the study of the combined data whenever it is felt necessary, the primary intent being that the entire study be a cooperative endeavor.

Specifically, the coordinating center has the following responsibilities:

1. To design data-reporting procedures so that all common items of information may be tabulated and punched on cards in a uniform and statistically desirable order.
2. To hold such conferences as are needed by project directors in order to maintain sufficient uniformity in measurement techniques, data, and research design so that inter-comparisons can be made, and at the same time to maintain the individuality needed to study efficiently the unique problems represented by the individual projects.
3. To provide a staff of consultants who are ready to assist the coordinating center and to offer their services to the individual project directors when and if requested. This staff includes inter-disciplinary experts from such fields as: research design, statistics, computer programming and data processing, measurement, reading research, linguistics, psychology, etc.
4. To make available the facilities of the University of Minnesota Numerical Analysis Center to individual project directors who have no such services at their disposal.
5. To review the research and statistical designs of individual projects as requested.
6. To consult with individual project directors when and if unexpected problems arise.
7. To visit the individual projects in order to consult with the project directors and to become acquainted with the unique

characteristics of each project so that when the data is collated, it can be realistically interpreted.

8. To assemble, analyze, and interpret such common and unique data as is made available by the directors of individual investigations. Analyses will be made to compare various methods and materials which have been used with children in ways and in combinations that could not be made in the individual studies.

9. To write final reports which will describe the statistical analyses of the combined data, report the results, draw conclusions, indicate implications for classroom practices, and make suggestions for further studies.

The research activities of the coordinating center will concentrate on the statistical analyses of the combined data from all the cooperating projects. Such analyses as the following will be made: (a) The data from various combinations of independent studies will be analyzed to study interactions and inter-relationships which could not be identified in the analyzses of the separate projects in isolation; (b) The effectiveness of such experimental method will be analyzed, where possible, in a matrix of the other methods thus eliminating to a great extent the Hawthorne effects that might exist in the isolated studies. This is made possible since common measures were decided upon previously; (c) The data from combined studies will be analyzed, wherever possible, with special attention to locating the pupil characteristics associated with success in each of the many approaches to teaching reading represented in the independent studies. Specifically, such analyses will study the effectiveness of the various approaches to teaching reading for children with high, average, or low intelligence, readiness, auditory perception, visual perception, etc., and any interaction that may take place between the methods represented in the individual studies and such pupil characteristics. Studies of this type never have been possible previously in such scope; (d) The various methods of first-grade reading represented in the individual projects will be compared to find out the comparative effectiveness of each in producing each type of reading growth represented in the common dependent variables. This phase of the study would have importance in assessing the contribution the various individual approaches might have in a combination approach to reading instruction.

Appropriate statistical models will be used for the various problems studied. In general, the basic model will be that of the multivariate regression model. For specific problems modifications will be needed to explore possible apexes of relationships, as well as other types of unusual characteristics of the data. It may be that a given reading method may be highly successful with the more able children and confusing to the less able. The use of the Johnson-Neyman technique may enable the location of the exact regions of significance, as well as the direction of the relationship. A study of statistical models will make possible the appraisal of the efficiency and rigor of the models used, as well as to secure the greatest amount of information from the data studied.

The major outcomes of the study can be separated into those dealing with (1) the improvement of instruction as a result of the combined study of the twenty-seven individual projects, (2) the feasibility of such cooperative research and a coordinating center as a pattern of cooperative research for other areas of study, and (3) the testing of the application of recently developed or new statistical models to such extensive and multivariant data which previously would have been too overwhelming to contemplate.

690.

221.

Vo. 9, 64

296.

## 2. Sex Differences in Effectiveness of Teaching Machines Versus Women Teachers for Teaching Reading*

JOHN D. MCNEIL

VARIOUS theories have been proposed to account for the failure of boys to achieve as well as girls in beginning reading. Factors of growth, maturation, and development are considered most critical by some. Others have indicated that existing instructional content appeals more to girls. Negative treatment of male learners by female teachers is another explanation for inferior progress in reading by boys.

In the present study, 132 kindergarten boys and girls were given instruction in beginning reading by an auto-instructional device. The boys were superior in their learning by this approach. Subsequently, most of these children were placed in the first-grade classrooms of seven female teachers. Under the conditions of ordinary classroom instruction, the boys failed to maintain their relatively higher performance.

Explanation for this finding centered around the belief that whereas the teaching machine treated boys and girls alike, e.g., gave both the same number of opportunities to respond and the same words of praise, the female teachers did not. Furthermore, the relative independence from both live teacher and peer group interaction provided by use of a self-instructional device may have been important in helping aggressive male learners achieve superiority.

Testimonies were collected to show that these boys whose relative positions in reading declined under teacher direction were indeed those pupils who received more negative comments from teachers and who were given fewer opportunities to read, two conditions that were not present under auto-instruction.

### Subjects

The 132 children (72 boys and 60 girls) who completed the auto-instruction program as kindergarteners constituted the total kindergarten population at two public elementary schools. Their average chronological age was 5 years 6 months, and their average intelligence quotient was 107 with a range of 72-128 as measured by the Kuhlmann-Anderson Test of Intelligence. Before the experiment, the boys and girls did not differ on a pre-test of reading readiness that measured knowledge of letters, words to be taught, and ability to recognize likenesses in letter configurations.

### Direction of Programed Materials and Teaching Machine

The programed materials consisted of 17 daily lessons. Each lesson was made up of approximately 35 questions and informational frames. Forty words were taught during the program. The task of the child was to learn these words and to be able to read novel sentences composed of these words. A complete description of the materials is reported elsewhere.[1] The program was administered through apparatus that instructed ten or fewer children at a time. Each child sat in a cubicle equipped with head phones through which he heard a taped commentary. The cubicle contained a response and information panel. The child indicated his selection of the answer to a question by pressing one of three buttons on the response panel. A green light was shown when he was correct, and a red one when in error. A single screen at the front of the room was visible from each cubicle. On this screen, learners saw the daily sequence presented by film strip, while hearing an accompanying taped commentary.

### Description of Instruction by Female Teachers

In general, classroom instruction con-

*This study was performed as part of Cooperative Research Project No. 1413, United States Office of Health, Education, and Welfare, Evan R. Keislar, co-investigator. Appreciation is expressed to Janis S. Stone who assisted in the design and conduct of the present study.

[1]John D. McNeil and Evan R. Keislar. *Oral and Non-Oral Methods of Teaching Reading by an Auto-Instructional Device.* Project 1413 with the Cooperative Research Program of the U. S. Department of Health, Education and Welfare, 1963.

691.

sisted of assignment of children into ability groups on the basis of the teacher's informal assessment of the child's readiness. Three reading groups were formed in most classes. During a period of four months, each reading group received approximately 20 minutes of direct instruction daily by the teacher and 20 minutes of daily follow-up or "seat work." Instruction usually followed the general procedures recommended to accompany the commercial reading material used, e.g., first grade reading materials produced by Scott-Foresman and Ginn and Company.

Data about the teachers' differential treatment of male and female learners was collected in individual interviews with children. A taped interview schedule was administered to each child in the seven classrooms. The schedule consisted of questions such as the following: "Name the children in your reading group." "Pretend you are in your reading group. Who is the teacher talking to when she says: 'Sit up and pay attention!' " (measure of negative comment) "Who doesn't get to read very much in your reading group?" (measure of opportunity to read)

### Results of Testing Under Conditions of Teaching by Machine Versus Teaching by Female Teachers

A post-test consisting of 51 multiple-choice items was given following the auto-instructional program. On this test, the boys earned significantly higher scores than the girls, boys $M = 30.3$; girls $M = 24.4$. A similar post-test was given after classroom instruction except that the words represented a sample of those taught by the teachers. Results from this test indicated a statistically significant superiority on the part of girls, boys $M = 31.7$; girls $M = 38.3$. An examination of changes in rank order on the two tests showed that 67 per cent of the boys dropped in rank, while only 27 per cent of the girls did so, indicating that there were variables within the classrooms of female teachers that militated against the maximum performance of young male learners.

### Teachers' Negative Comments, Lack of Opportunity to Respond and Progress in Reading

Children reported that boys received more negative comments from the teachers than girls ($X^2 = 13.2$, $p \lesssim .01$). With respect to opportunity for reading, it was found that boys were seen as given less opportunity to read ($X^2 = 5.7$, $p < .05$). Change in rank order in reading was correlated with the number of times the individual pupil was perceived as receiving negative comments from the teacher. The change in rank correlated .313 with negative comments, $p < .01$, indicating that those who received such comments did not maintain their progress in learning to read. Likewise, the change in rank order correlated with perceived deprivation of opportunity to read ($r = .238$, $p < .05$).

### Conclusions

Results support the hypothesis that teachers offer different treatments to boys and girls and suggest an association between teacher behavior and inferior performance in beginning reading. Teachers fail to adjust themselves or their school procedures to the behavior tendencies of boys as well as to those of girls. The findings that showed these same boys superior to girls in reading following auto-instructional procedures suggest that features of auto-instruction may be useful in teaching boys. Equality in treatment and the reduction of peer group interaction in learning to read through a self-teaching device, for example, might account for better performance on the part of male learners.

222.

693

Vol. 10, 65

408.

## H. CURRENT VENTURES

### 1. Predicting Early Success

SHIRLEY FELDMANN
City College of New York

ACCOMPANYING increasing concern over school failure, especially among the so-called culturally disadvantaged children, has been a refocus of attention on early learning, particularly on approaches to learning how to read. Any approach to learning to read which insures long-term success for most children is clearly a valuable one, for we are all aware of the inefficiency of our present patchwork remedial efforts with retarded readers.

However, in searching for the best approaches to reading learning, the great difficulty is that we do not know enough about learning, especially about learning

409

to read, to know how best to teach reading. As a result, many of the methods of teaching as well as the evaluative instruments which predict or measure reading achievement are vague and crude approximations of those which are needed. This paper describes one attempt to deal more definitively with one area of early reading learning, that of diagnosis and prediction of reading achievement.

There are many standardized reading readiness tests now in use. Most yield one general predictive score based on a summation of all the test parts.

In our work with culturally disadvantaged children, we found that such tests gave little information which was not already known by the teachers. Many of our children received the lowest possible scores on the test. The scores indicated that the children were not ready to read, an observation easily made by anyone working with them. No specific information about the reasons for the lack of readiness was forthcoming from the test data, so the teacher had no basis for action to help a particular child.

Clearly, more is needed than pronouncing a child ready or not in some global way to begin reading. A better approach would be to test knowledge of specific skills underlying reading, in order to ascertain any deficit in those skills that might possibly hinder reading achievement. With such information, extra instruction could then be given the child to ameliorate his difficulty.

In addition to yielding little information about specific skills underlying reading, there was another weakness of existing readiness tests. They didn't contain sufficient test items within an ability range to differentiate among low scorers, i.e., there weren't enough appropriate items to spread out the scores of the low scorers. For example, all low scorers might receive the same minimal score even where there could be assumed to be skill-level differences among them. Thus, existing tests seemed to give too little information about relative levels of skills, especially for the disadvantaged child.

For these reasons, work was begun on a new predictive and diagnostic test in 1960, by Max Weiner of Brooklyn College and myself, under the sponsorship of the Institute for Developmental Studies, New York Medical College. The test was called the Reading Prognosis Test, and was designed to be predictive of future reading achievement as well as to give diagnostic information about present skill levels of the child. The test is to be used before formal reading instruction is given.

The test was constructed as a 25-minute, individually administered test to be given and scored by the classroom teacher. Although more time-consuming than a group test, an advantage was felt to be gained for the teacher through individual work with the child. An opportunity is afforded the teacher through use of a standardized test situation to learn how the child responds to the skill areas as well as to make comparison of the child's working abilities with his peers.

The test measures particular skills in two areas related to reading achievement, Language and Perceptual Discrimination. Both of these skill areas were considered to have high priority among those prerequisite for acquisition of reading skills. Another area measures existing reading achievement levels. This area, called Beginning Reading, indicates the achievement of children already learning to read without formal instruction. There are seven subtests contained in the three areas of the test.

To date, four validation studies of the test have been carried out. Results of the first three studies have been reported elsewhere.[1] The fourth validation study was carried out in the school year 1963-64 in two communities, one a large urban area and the other, a suburban community. About 300 children were included in the sample, both Negro and white children in both communities. The socio-economic status of each child was determined and rated on a 3-point scale based on the occupation and education level of the head of the household. The ratings covered roughly lower class to middle class status.

The children were given the Reading Prognosis Test by their teacher at the

[1]a. Weiner, M., and Feldmann, S. "Validation Studies of a Reading Prognosis Test for Children of Lower and Middle Socio-Economic Status." *Educ. and Psychol. Measurements*, 1963, p. 23.
b. Weiner, M., and Feldmann, S. "Measurement of Reading Skills in Lower Socio-Economic Status Children." Paper read at APA Conf., 1963.

693.



beginning of their first grade year, and then were given a standardized reading achievement test in June.

Results of the fourth validation study show as much promise for prediction as did the previous studies. For the total group of children, the total test score correlates with reading achievement, as measured either by the Gates or Metropolitan Reading Achievement Tests, with correlations of .71 to .80, indicating a high predictive value for the test. For particular ethnic or socio-economic groups in either community, correlations hold to about the same level, with a range of .60 to .88. The total test score can be assumed to predict reading achievement about as well for any of the groups studied.

In each of the areas of the test, Beginning Reading, Language, and Perceptual Discrimination, scores also hold up as predictors of reading achievement across ethnic and socio-economic status groups. Beginning Reading and Perceptual Discrimination seem to be better predictors, showing a correlation range of .50 to .85, with the majority of the correlations falling from .60 to .70. The Language area predicts reading achievement with a lower range of correlations, from .40 to .50. Item analyses and scoring revisions, yet to be completed, will probably help to improve predictive value of this area.

What are the implications of these findings? The most important one is that the test will give diagnostic information about the potentially poor reader, no matter what his ethnic group or socio-economic level. From the test data the teacher can obtain the skill levels of the child in two areas underlying reading, as well as check him out on existing reading achievement. With such information, programs of skill improvement could be undertaken for the child in needed areas, thus increasing the probability that the potentially failing child could learn to read. It has been encouraging to find that the test has predictive and diagnostic value. We hope that when completed, it will help to bring about a closer fit between the measured skill attainments of the child and the reading curriculum used to teach him reading, so that possibility for success in reading can be increased.

223.

Vol. 10, 65

# C. NATIONAL CONFERENCE OF RESEARCH IN ENGLISH

471.

## 1. The First Grade Cooperative Studies: History

DONALD D. DURRELL
Boston University

THE CURRENT national study of first grade reading brings together the resources of twenty-seven research centers across the nation, each comparing two or more approaches to first grade reading. The study is financed by the Cooperative Research Branch of the United States Office of Education, and the final collation of data and evaluation of results will be made at the University of Minnesota.

The many unique features of this study make it a landmark in the history of educational research. For the first time, we have a large number of research workers centering their attention on a single well-defined problem, with the possibility of comparable findings. For the first time also, we have enlisted many people in the cooperative planning of a large research study; incidentally, the study is unique in the enlistment of competition for the improvement of instruction. While each center is free to follow its own programs and report its own results, the final evaluation will place all treatments in direct comparison. This marks the first time that Federal funds are being used in a truly *national* approach to educational research.

Heretofore, we seem to have been committed to private, provincial approaches to educational research. The large foundation sponsors of educational research, including the Federal government, have made private grants to institutions, each designing its own private study. When grants have been made to different institutions for the same general purpose, there have been no provisions for comparative evaluation of the merits of the several approaches. While this encourages diversity of approach, one needs to discover which of the approaches and which components of each approach is productive of improvement achievements. This requires a national approach, utilizing cooperative-competitive ventures.

Research in beginning reading is typical of the private, single-shot approach to the solution of a problem. Few fields have been subjected to more research, and the yields have been fruitful in many ways. Yet we are faced by countless approaches to first grade reading, each believed by its designer or its promotors to be an advance over previous or competing approaches. When each has been subjected to private research, it seems always to be better than the "control" method, and the result is reported in good faith. The results are immediately criticized by opponents of the approach as resulting from Hawthorne effect—the advantage of novelty and stress. The measures used are attacked as being too narrow, or at least as being given too early in the development of the ability—the true weaknesses will be revealed later on. There is always concern for lack of control of variables; the seeming superiority may result from services not indicated, or from the excellence of the teachers. We have learned to doubt the evidence of the

694.

private studies, even to the point of discarding all research evidence with the erroneous statement, "The experimental method always wins."

These doubts about private studies are reflected in the high mortality of methods proposals when screened by grant-making institutions. No matter how well-designed the proposal, it is easy for the screening committee to find uncontrolled variables, inadequate definition of the components tested, and defects in the measures of outcomes. Relatively few methods studies survive such screening, yet nothing is more important in improving the amount and quality of learning in classrooms than studies of methods and materials of instruction.

These were the considerations that led to a meeting of the National Conference on Research in English at Syracuse University in the fall of 1959. Dr. William Sheldon obtained funds from the Carnegie Corporation to hold this meeting. One subcommittee, with Dr. Russell Stauffer as chairman, concentrated on design of a national study of first grade reading. A tentative plan was drawn, including many features for the current national study. While it was recognized that the single-grade study would be criticized for "measuring too soon," it was felt that the proposal deserved consideration. However, there was no immediate action taken to obtain funds for the study.

In the next year, much the same group met at the University of Chicago, under W. S. Gray Foundation funds, at the invitation of Dr. Helen Robinson. Here, most of the discussion was centered on the study of first grade reading, with several subcommittees dealing with different aspects of the problem: measures, control of variables, statistical treatment, etc. Again, the general problem was endorsed by researchers, and it was agreed that funds should be sought from the U. S. Office of Education. After considerable correspondence, surveys of opinion, and discussion, the Cooperative Research Branch agreed to finance the study.

The Research Committee of the National Conference on Research in English, consisting of Theodore Clymer, Arthur Gates, Thomas Horn, Russell Stauffer, and myself as chairman, was asked to draw up specifications for submitting proposals. The specifications had the following features:

—All interested people were to be invited to submit proposals.

—Every proposal should compare at least two approaches to beginning reading, with at least ten classrooms using each approach.

—Each study was limited to $30,000 of Federal funds.

—Each study was to be an autonomous study, with its own program for evaluation, and free to report separately.

—The directors of approved proposals, however, would be expected to come together to decide upon minimum common measures as pre- and post-tests, and to suggest ways to control variables and evaluate general outcomes.

—It was further stated that all proposals would be evaluated on the basis of potential yield for theory and practice of reading.

These specifications were duplicated and mailed to the heads of colleges and universities and to state departments of education in October 1963. The deadline for submitting proposals was December 1, but because of the high interest in the study the deadline was extended to March 1. Seventy-five proposals were received, with twenty-seven being approved by the screening committee and the Research Advisory Council. Many proposals were rejected because of lack of indentification of the components to be compared; several were really "brand name comparisons" of basal reading systems. Such proposals, without clear definition of components, would merely compare different brands of educational stew, in which the recipes were much the same. The "private brands" of reading, not available generally to schools, were also rejected, as were the "let me build my own program at your expense" proposals. The studies accepted may not have been the best; there may have been more merit in some of the rejected studies than was found by the screening committee.

When studies are selected on the basis of individual merit, the problem of balance of variety of methods arises, as well

695.

as that of geographical distribution. However, the accepted proposals showed a great variety of approaches being compared and a wide distribution of centers across the nation. Both large and small colleges are represented, as well as proposals by public schools, in contrast to the "favored few" large institutions usually dominating private grants.

The final task of the plan was to choose the center for coordinating the study. The University of Minnesota was invited to serve as the center, with Drs. Bond and Dykstra as directors. The first meeting of the individual project directors was held in May, 1964, at the University of Minnesota. (A discussion of the implementation of the study is presented in the next article by Dr. Guy L. Bond.)

224.

Vol. 8, 63

## 3. Different Approaches to Beginning Reading

250, JEANNE CHALL

Since February, 1962, I have been engaged in a study of different approaches to beginning reading. The study is scheduled to continue through February, 1964, and although we have made good inroads into the collection of data, we are at that point where more has to be done than has been done. Therefore, the major findings will have to wait for a much later date. I will present, however, a rough outline of what we have been doing.

In essence, our study, which is supported by the Carnegie Corporation, with the cooperation of The City College of New York, is concerned with the controversy in beginning reading that has been raging quite steadily for nearly ten years. We are looking into the claims and counterclaims made for different approaches to beginning reading with the hope that some basic underlying issues will be uncovered. Hopefully this will take the problem of beginning reading methods out of the realm of heated debate, into the area of objective study.



Despite the thousands of research studies and discussions on reading since the turn of the century, it has been difficult for researchers to state with any degree of confidence that one particular method or approach to beginning reading is indeed better than another.

Such a period of disagreement and debate began in 1955 in the United States, with the publication of Rudolf Flesch's *Why Johnny Can't Read*. As you well remember, this book literally "took us by storm." It stayed on the best-seller lists for over 30 weeks and was serialized in many newspapers. More important, it challenged, strongly, clearly, and not without anger, the prevailing views on beginning reading, by calling for a return to a phonic approach as "the best," no, the *only* method by which Johnny should begin. Flesch's support for such a view was his interpretation of the reading research, particularly the experimental research comparing different methods. Interestingly enough this is the same research on which the prevailing eclectic methods were based.

England saw the beginnings of its reading controversy at about the same time, with the experimental reports of Daniels and Diack. They also concluded that their newly devised phonic-word approach produced better results than the prevailing mixed methods then in use.

More recently, linguistic scientists following the early lead of Leonard Bloomfield,[1] have called for reforms in beginning reading instruction. With some variations, they have recommended early introduction and mastery of the alphabetic principle through vocabulary control based on consistent phoneme-grapheme patterns.

Within the field of reading itself, there have been heated debates since the 1950's over individualized reading. The individualized reading proponents claim that the use of a variety of materials (mainly interesting trade books) and individual teacher-pupil conferences result in better achievement and more lasting interests than the prevailing approach based on within-class groups using basal readers.

Other approaches have been proposed to challenge the prevailing views, but only a few can be mentioned here: Van Allen's Language-Experience Approach, where children's own creative writing is used as a vehicle for learning how to read, write, and spell; Spalding's approach based on an early start through systematic training in writing, spelling, and phonics; Richards and Gibson's specially devised materials based on a limited introduction of letters and language patterns; Mae Carden's language program with its heavy emphasis on phonics; the special systematic phonics programs that have been suggested as supplements to, or foundations for, the regular basal readers—the Hay-Wingo system, *Phonetic Keys to Reading, Breaking the Sound Barrier, Phono-visual,* etc.; the Augmented Roman Alphabet, which proposes that the child begin his reading with a "more sensible" alphabet; and of course, the most dramatic of all, O. K. Moore's demonstrations that two- and three-year-olds can learn to read with the aid of an electric typewriter, although there is an impressively sophisticated behavioral science theory behind this.

At a special conference of the National Conference on Research in English, Committee on Reading, sponsored by the Carnegie Corporation in 1959, the problem of beginning reading was considered one of major importance for research. A subcommittee composed of Ralph Staiger, now Executive Secretary of the IRA, James Soffietti, linguist at Syracuse University, and the present writer believed that large-scale cooperative experimentation was essential to determine whether some approaches are indeed better or worse than others. To guide such large-

[1]Bloomfield suggested reforms as early as the 1930's and two articles on his views were published in *Elementary English* in 1942.

697.

scale experimentation, a paradigm of *Variables Which Influence Research on Success in Beginning Reading* was proposed and accepted by the entire Research Committee as a fruitful schema for approaching the problem.

The following year, at the University of Chicago, the same committee met, refined the schema, and suggested that individuals through their institutions, submit proposals for large-scale cooperative experiments to compare systematically the different approaches. The plan was to have a series of longitudinal studies, beginning in kindergarten or first grade, and running through the sixth grade.

It was the belief of this writer that if the schema had merit, it could be used as a basis for a critical analysis of the already existing research. This is in essence what I proposed to the Carnegie Corporation in 1961 and it was accepted.

## The City College-Carnegie Reading Study

Our study, then, is primarily concerned with a critical analysis of the experimental literature on beginning reading methods. Such a critical analysis, we believed, would help salvage whatever we *do know,* and point up what we *don't know.* Since research should, in its best sense, be cumulative, we hoped that a detailed critical analysis and synthesis of the findings would help the future experimenters design more crucial studies.

In addition, we planned to survey the correlational studies on factors in success in beginning reading, and some of the classic studies of reading disability, to see whether we could possibly relate specific kinds of reading problems to the methods used.

A second aspect of our study is concerned with the development of a model to describe the different approaches to beginning reading. One of the real difficulties in testing the effectiveness of any method is the lack of clarity with regard to what that method includes or excludes. Considerable time, energy, and money are often spent in "experimenting" with a "new" method, when a careful analysis of the "new" method would indicate that it is quite similar to a method widely used in the past, fairly well researched, and long since discarded.

Let me give you some examples. Two approaches that have been widely debated recently are the individualized and basal reader approaches. True, these approaches are quite different when we consider choice of materials and pacing. But, they are quite similar in that both start with readiness, then proceed with an initial sight vocabulary, which is later supplemented by word-analysis techniques.

Another example would be a comparison of the "linguistic approach" (as presented in the Bloomfield-Barnhart, *Let's Read*) with the approach used in the most widely used basal readers. Both accept the word as the primary unit to be learned. Both, also, accept the principle of vocabulary control. However, the words that are "controlled" are quite different. Bloomfield controlled words for the regularity of their sound-symbol relations. Therefore the Johnny who learns to read by Bloomfield reads about *Dan, Nan, fan,* and *can,* and he soon reads that "Dan can fan Nan." The basal readers control their words on a meaning-frequency-repetition principle. Thus, the Johnny who learns from a basal reader meets such words as *look, come, go,* and *see.* And he soon reads that "Mac sees Muff" or "Ted sees Sally." For neither one of these programs is writing crucial.

Some approaches rely heavily on writing, while others have the children do no writing at all, except perhaps to circle or underline a word. Some expect the child's motivation for learning to come from the content (stories and pictures), while others accept the fact that the content for beginners is of necessity dull, and therefore rely on the child's desire to master the reading "trick." Some give emphasis to "reading for meaning" and "critical interpretation" right from the start, others emphasize learning the code first, with meaning and interpretation coming after a sufficient facility with the code has been established.

We thought, therefore, that a better clarification of method would lead not only to the design of more analytic studies, but would also perhaps aid us in the understanding of the process of learning

to read. Hopefully, such a clarification might lead us back to the psychology of learning, from which the earlier experimenters in reading received their impetus.

A third aspect of our study involved interviewing leading proponents of various approaches, observing these approaches in schools suggested by them, analyzing achievement records, and talking with administrators and teachers.

## Preliminary Impressions

We present the following only as tentative impressions, which the full report will amplify and, modify.

Our analysis of the literature so far has confirmed what in a sense was to be expected. There were practically no studies that would meet strict experimental criteria. The different methods compared were so poorly defined and described, and were in most instances so similar, that it will be difficult to interpret the findings with any degree of certainty.

Except for a few early studies, most of them were narrowly conceived, with no attempt to anchor their hypotheses in a theory of learning or of the reading process. A discouraging note is that the more recent studies, although they use more elaborate statistical tools, appear to be even more narrowly conceived than those reported in the 1930's. Although the findings have been used to justify the use of a given "method" because an alternate "method" produced more reading problems, practically none of the investigations paid any attention to the range of reading achievement and to the quantity and quality of reading problems produced.

Many of the studies convey the impression that the motivation for the experimentation was not so much a concern with the actual efficacy of a particular method, but an attempt to confirm the validity of a particular method that was already in use in a particular school system at a particular time.

In other words, *most* of the investigators—*not all*—asked the wrong questions. Instead of asking what effects different methods had on different kinds of children, under given circumstances, when used by given teachers, etc., they asked only—Which is better? If they found one significantly better than another, they seldom asked why.

Along with this were underlying assumptions regarding goals of reading instruction and the process of reading which were seldom made explicit. We are attempting to relate, if possible, some of these underlying assumptions to the findings and conclusions of the experiments and to the prevailing educational philosophy and psychology at the particular time of the experiment. That these underlying assumptions must be taken into account was made evident by the fact that some experimenters appeared to draw conclusions and educational implications from their experiments that were not warranted by their own findings.

Visits to schools to observe classes using different approaches have confirmed what has been observed by others: what an author specifies as the correct procedure for his method, what teachers and administrators say they do, and what one actually finds being done in the classroom are not always in agreement.

For almost every approach, we found teachers violating some of the precepts that the authors claim as a special feature of their system. Too often, also, they are the very things that the authors give in their "theory" as the pitfalls of other methods against which they propose their own. This emphasizes the necessity for objective observations by "outsiders" in large-scale controlled experimentation.

In schools using one of the "newer approaches," there appeared to be high morale and what we have termed the "self-created" Hawthorne effect. Administrators and teachers in these schools are convinced that they have the answer. They claim excellent results, although, when asked for objective evidence, one finds that they have been quite remiss in collecting such evidence. However, some schools have kept good records and have made these available to us for study.

Teachers and administrators following the newer approaches are quite critical of the prevailing view (the basal reader, or eclectic approach in the U. S.; the mixed methods approach in England). At the same time that they openly criticize the prevailing view, and the "reading ex-

699.

perts" and "teachers' college professors" who hold such views, they feel unjustly misunderstood, criticized, and misinterpreted by them.

In general, I found emotion where reason should prevail. There appeared to be such a need to defend what one was doing that it was difficult for each to see in what respects his approach was similar to another and in what respects it was different. Generally, those using the "newer approaches" appear to be aware only of the one special feature that they have added, or changed. They fail, at the same time, to see that they are incorporating many other features that are recommended by the "reading experts" and "teachers' college professors" and that the better results they seem to be getting may stem from these other features. Those who have adopted one of the "newer" approaches are also, as a group, unaware of or quite hostile to other "new" approaches that differ from their own only in minor respects.

The parochialism and emotional involvement with a particular approach raises some fundamental questions regarding the possibility of "objective" reporting by those directly involved in the outcomes of experimentation. The emotional involvement is really not all negative. The positive effects are the greater intensity of work and the general improvement of the total reading program by those who are trying to make a point that their particular approach is the best. In the long run, the children probably benefit from this "self-created" Hawthorne effect. But, for science and for understanding, such a situation has serious limitations, unless, of course, the Hawthorne effect is itself the most essential variable.

In general, I found a trend away from the prevailing "eclectic" approach to beginning reading. I found a trend, especially in the United States, toward programs that stress systematic teaching of the sound-symbol relationships, whether through special phonics programs or through a "linguistic approach." This trend is also accompanied by changes in classroom organization (ability grouping of pupils, and more whole class teaching), higher achievement expectations (with ceilings being raised on the difficulty of books used in the early grades), an earlier start of formal reading instruction (in many schools in the United States, as early as the beginning of kindergarten), a general emphasis on subject matter learnings, and greater formality and system in teaching the content subjects. At the same time, there appears to be a reverse trend, as exemplified by the Language-Experience Approach and Individualized Reading, which stress greater informality and freedom of choice of reading materials by the children and teacher. This latter trend is, I believe, less pronounced than the former, and is being incorporated as an aspect of the more structured programs.

In England and Scotland, where the controversy has not been as heated as in the United States and where schools have traditionally had a choice of following either a sight or phonic approach (the teacher manuals to their reading schemes [basal reading series] give separate instructions for "sight" teacher and "phonic" teachers), the trend toward systematic phonics does not seem to be as strong. But, there too, most of the experimentation has been motivated by dissatisfaction with the acquisition of the alphabetic principle.

The interviews of leading proponents of various methods have been especially valuable in revealing underlying assumptions, not always made explicit, in the definitions and goals of reading held by different people. Linguists and those who call for more systematic phonic programs tend to see the task of beginning reading as mastering a code (sound-symbol relations) while those within the prevailing view (including the proponents of individualized reading) tend to see the beginning steps in reading essentially as a miniature replica of the reading engaged in by adults. They tend to stress the importance of content, interpretation, and meaning from the start. However, all proponents see the end product of reading as one of getting meaning and interpreting what is read. This difference in the definition of beginning reading may help explain the emphases stressed by each and some of the emotion that has been expended in the debate.

700

Vol. 7, 62

225.

# 4. A Balanced First Grade Reading Program

HELEN A. MURPHY

The expectation of all children when they start grade one is that they will learn to read. We know enough about the learning process, and the problems involved to guarantee to them that they all will meet this expectation. We can determine the first week of school, through simple, informal tests, each child's strengths and weaknesses, and we can provide the necessary teaching to build on his strengths and correct his weaknesses.



Reading readiness is not something we wait for, but rather it is something we must bring about through careful instruction. One of the most encouraging findings of research is that mental age is only one factor, and not the most important one, contributing to the child's success in learning to read. Auditory and visual discrimination and specific language in relation to the material of the basal reader which is to be used are more important factors than mental age, and all of these can be taught.

Phonetic writing consists of visual symbols that represent sounds in speech. Behind all reading is the fact that words are symbols for ideas, objects, qualities or relationships, and we must always keep ideas attached to the printed symbols as we introduce the child to the symbols in teaching him to read. Let us consider a program that will enable the child to acquire the tools he needs in order to learn to read.

This program must include:

1. Ear training which is the basis for phonics
2. Letter knowledge which assures the ability to recognize words
3. Applied phonics which provides practice in unlocking new words
4. Word recognition which gives practice in quick perception

Tests of learning rate, knowledge of letter names and sounds should be administered during the first week of school. Children with high learning rates and high scores on knowledge of letter names and sounds should be introduced immediately to the basal reading program, omitting the readiness material. Children with some knowledge of letters and sounds should have a concentrated program to teach these abilities, introducing some vocabulary through experience charts, and the children with little or no knowledge of letters and sounds and low learning rates should have extensive practice to develop these abilities before the reading program is introduced.

There is much evidence that many children do not hear separate sounds in spoken words. A child acquires language through imitation. He hears whole words; probably the smallest unit he ever hears as he learns to speak is a syllable, not separate letters. Exercises which require him to listen for differences in pitch using a piano or other musical instruments or differences in voices or to recognize sounds, as tapping or bells, may be effective as attention drills. These may be used until he has developed the habit of careful listening, but they will not help him to notice the difference in the first sounds of *bird* and *dog,* or *men* and *nine,* nor the difference in the final sounds in *cart* and *calf,* and he must recognize such differences if he is to learn to read without confusion.

It has not been possible to establish an order of difficulty of the various letter sounds, but it seems quite clear that in general, beginning consonants are the easiest to identify, then beginning blends, rhymes, and final consonants. Frequency of letters in the speaking vocabulary of children and in the vocabularies of primary grade textbooks, provides a good basis for introducing the letters. "S," "b," hard "c," and "t" have the highest frequencies in these lists. Lessons introducing these sounds may be presented to the whole class at the beginning of the year and will enable the teacher to locate the children who have a good ear for sound and those who need special help.

A lesson in ear training should include practice in listening for a sound or sounds in words, the visual presentation of some words and responses by each child to the sound and name of the letter which is being practiced. The teacher should dictate many words, always keeping the meaning high and always being alert and enthusiastic.

Here are some suggestions for presenting "s." Write on the board some words that begin with "s" as *sour, soap, six, Saturday* and *Sunday.* Say, "These words begin with 's' as *so.* Say them after me." Each child has a card with "s" which he holds up each time he hears a word that begins with "s." To insure meaning, dictate groups of words that are similar. For

701.

example, you might say, "These are all number words; some begin with 's'; some do not. If you hear 's' (sound) at the beginning of a word, say the word and hold up the card with 's.' Listen, *six, seventeen, two, seven, one, seventy.*" Comment on the responses as, "Yes, *six* begins with 's.' " You might have things which would be in a lunch box as *sandwich, cookie, saltine, sardine, apple, salad;* or names of people as *sailor, soldier, baker, sister, Sally, Dad;* or things to see as *sign, signal, box, television, sight.* Following the dictation, refer to the words on the board and point to them as you say them. Ask questions which can be answered by the words on the board, pointing to the word as the answer is given.

What number comes after five? (six)
How do lemons taste? (sour)
Which day comes after Friday? (Saturday)
What do you use to get your hands clean? (soap)
Which day comes after Saturday? (Sunday)

Many children will learn to read these words as well as learning the "s" sound. It is important to provide for different abilities, levels of progress and learning rates within the class.

A child can acquire the system of English phonics through an "inductive approach" which enables him to acquire phonic generalizations through experience in solving words. These variations appear very early in beginning reading as the "s" sound in *city* and *saw,* or the "r" sound in *her, bird,* and *burn.* Practice should be provided in listening and looking so that the child discovers that sounds are generally spelled certain ways, but at the same time finds that these sounds may be spelled different ways. We have tried, successfully, lessons of this type with children in regular classes in public schools. Our first attempt in grades one, two, and three was to discover if it is possible to introduce different spellings for like sounds as *John* and *George* and different sounds for similar spellings as *grow* and *now* and not confuse the children. The results were encouraging. They were not confused, and they applied the knowledge in solving new words in reading and in spelling. A second extensive study in grade one proved very effective in developing strength in phonics and in improving the reading vocabulary.

Many children come to school knowing the names of some letters. The twenty-six letters, capital and lower case, can be taught in ten days. All of the capital letters can be introduced in isolation in meaningful situations. Television channels, Kellogg's K, SOS, are samples of such opportunities. The children may be taught their initials and this will save valuable teacher time as they can identify their own papers and materials. Unless a school system does not allow the teaching of manuscript writing, written practice is interesting to the children, and effective in fixing the letters. Here again, it is possible to introduce vocabulary which some children will acquire very readily. Newspaper advertisements may be used very effectively in teaching the letter names.

In remedial work the first thing checked is the child's knowledge of letter names, and if he doesn't know them, he is taught them immediately. If we teach them before we introduce words, we will eliminate the possibility of the child's confusing such words as *want* and *went,* or *saw* and *was.*

As soon as the child knows letters and sounds and has begun to build a sight vocabulary, he should have practice in applied phonics, using his knowledge to solve new words, beginning with the substitution of beginning consonants, then initial blends, final consonants, and medial vowels. Here again, it is important to keep the meaning high. The teacher writes a group of words on the board. She defines one of the words, but does not say the word. The children respond to the definition with the word. Many different situations for a single word may be presented which will keep the child's interest, and at the same time, provide excellent practice. To give practice on *ball, bell* and *bill,* here are a few items which could be used.

Baseball is played with a bat and a ..... (ball)
Cinderella went to the ..... (ball)
We heard the ring of the door ..... (bell)
Did you hear the fire .....? (bell)

702.

A bird's beak may be called a ..... (bill)

The man finished the work and sent his ..... (bill)

At the close of a lesson of this type, it is well to have the children read some sentences which include some of the words so that the knowledge is transferred immediately into reading.

What is the place of the basal reader in the primary grades? The basal reader consists of stories written in a controlled vocabulary and provides an excellent outline of the necessary skills to be developed. The manual includes many fine suggestions to help the teacher in using the books. No one can write teaching materials that fit all children in all classrooms. A basal system is best suited to the children in the average group. Bright children can often go beyond what is expected, and can always move along rapidly without much of the repetition which is provided. On the other hand the children in the slow group need more repetition than is supplied, and very careful development of all the needed skills. The teacher is the one who adjusts the excellent materials provided in these systems to the particular needs of the children in her class. A teacher should know the basic philosophy of the authors, the organization and plan of the system, but she should not, in my opinion, follow absolutely what the manual says. She must use her intelligence, knowledge, and initiative and, as the director of learning, adjust the materials to the needs of the children she is teaching. Our job is to teach reading so well that children expect to read. It is difficult to stimulate bright children to want to read when they are held to a slow pace and bored with the material. As one bright child said, "I hate reading in school. You know there isn't much to one of those stories to start with, and she can make it last, and last, and last."

We should be sure that each day the child adds words to his sight vocabulary, as many as the learning rate test indicates that he can learn. He should have some reading at the instructional level and some supplementary reading when it is easy and fun. We must provide opportunities for children reading at different levels to read together. There will be children who learn more slowly than others, but this does not mean that they should not read well at their level. There is only one standard for reading—excellent reading.

703.

226.

# 2. Effect of First Grade Instruction Using Basal Readers, Modified Linguistic Materials, and Linguistic Readers*

WILLIAM D. SHELDON**
Syracuse University

## Method

THE FIRST GRADE READING STUDY conducted at Syracuse University was one of twenty-seven similar studies made throughout the United States during the 1964-65 academic year under the sponsorship of the U. S. Office of Education. Direction for these studies was achieved by the establishment of a Coordinating Center at the University of Minnesota and agreement among the twenty-seven project directors on common data to be collected and testing instruments to be used.

The Syracuse study was a comparison of three sets of materials designed for the teaching of beginning reading. These were

1. Ginn *Basic Reading Series*, Revised Edition *(1)*;
2. *Structural Reading Series*, L. W. Singer Company *(2)*;
3. *Let's Read*, Leonard Bloomfield and Clarence L. Barnhart *(3)*.

Subjects were 469 children in twenty-one central New York classrooms who, at the end of kindergarten, had been assigned to first grade classrooms by the administrative procedures usually employed in each of the three cooperating school districts. The twenty-one teachers in these classrooms had agreed to be placed in any one of the three treatment groups. Assignment of teachers to the treatment groups was done by means of a table of random numbers.

Children in seven classrooms were taught to read using the Ginn series. It is a program which gives particular atten-

*The research reported herein was supported by the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education and Welfare. Project number 2683.
**I wish to acknowledge the aid of Donald R. Lashinger who served as my assistant during this project and was responsible for much of the writing related to it.

704.

tion in the primary grades to word-study skills and comprehension skills, good reading habits, and the development of desirable attitudes and appreciations *(4)*. Materials included readers and accompanying manuals, workbooks, tests, word cards, charts, and enrichment materials. The Ginn approach to the teaching of word-analysis skills is one which is termed eclectic in that it involves phonetic analysis, structural analysis, context clues, and picture clues.

The seven classrooms of children which used the *Structural Reading Series* (modified linguistic materials) experienced instruction based on the development of

> an insight into the relationship between the spoken and written language. In this program the spoken word is taken as the starting point; it is the meaningful whole which the child learns to analyze so that he readily distinguishes its component parts (main part and ending). From the analysis of the spoken word, the children advance to the sounding out of the corresponding printed word by learning to recognize the main part at a glance and simply attach the ending. . . . The program starts with a readiness book for kindergarten or grade 1 and proceeds to two books for grade 1 and two books for grade 2 *(5)*.

The remaining seven classes used the linguistic readers developed by Leonard Bloomfield and Clarence L. Barnhart. This program is based on grapheme-phoneme correspondences with no irregular words introduced until late in grade one materials. There is little emphasis on developing comprehension skills at early stages of instruction because of the definition of reading which the authors suggested. According to Bloomfield and Barnhart, initial reading involves only the decoding of printed symbols. Hence, the program includes no systematic approach to the building of comprehension skills. Materials include nine readers with an accompanying manual for the teacher, nine workbooks to be used with the readers, and an ABC book designed to teach the letters of the alphabet before work in the readers begins. The entire program is designed to be completed by an average class by the end of grade two.

Initial activities during September, 1964, included workshops for each group of seven teachers. These workshops were conducted by representatives of the three publishing companies whose materials were being used and were considered necessary in order to familiarize the three groups of teachers with the philosophy and instructional practices upon which the three programs were based. Throughout the year, the teachers met with the Syracuse University research staff in order to discuss any questions on methodology which arose and to share teaching techniques. In addition a member of the research staff observed each teacher every two weeks on an unscheduled basis. Such observation was deemed necessary to make certain the materials were being used properly. The observations also provided questions and problems to be clarified at the periodic meetings.

Pre-experiment testing during September and October, 1964, included

1. Pintner-Cunningham Primary Test, Form A, Revised, 1964;
2. Metropolitan Readiness Test, Form A, 1964;
3. Murphy-Durrell Diagnostic Reading Readiness Test, Revised, 1964;
4. Thurstone Pattern Copying, Experimental Edition;
5. Thurstone and Jeffrey Identical Forms, Experimental Edition; and
6. Allyn and Bacon Pre Reading Test.

Following the pretesting a 140-day instructional period began during which each teacher used for instruction only that program to which she had been assigned. That is, there were no other instructional materials used on a supplementary basis. However, library-type materials were provided each classroom. Pupils could look at or read these as they wished. At the end of the instructional period in May, 1965, the following instruments were administered to all children in the study:

1. Stanford Achievement Test, Primary I Battery, Form X, 1964;
2. San Diego Pupil Attitude Inventory;
3. Writing Sample; and
4. Allyn and Bacon First Reader Test.

A randomly selected subsample of thirty-five subjects from each treatment group

was administered the following individual tests:

1. Gilmore Oral Reading Test,
2. Fry Test of Phonetically Regular Words,
3. Gates Word Pronunciation Test, and
4. Karlsen Phonemic Word Test.

## Results

An examination of Table I reveals that no significant differences between treatment groups were found on pretest measures of mental age, chronological age, and readiness test scores. In addition to the information reported in Table I, an analysis of variance of the mean scores on all subtests of all the pre-experiment measures yielded only one significant difference. This difference occurred on the Rhyming Words subtest of the Allyn and Bacon *Pre Reading Test.*

TABLE 1
RAW SCORE MEANS OF CLASSES AND RESULTS OF THE ANALYSIS OF VARIANCE ON SELECTED PRETEST MEASURES

| Variable | Let's Read N=7 | Ginn N=7 | Structural Reading Series N=7 | F | Significance Level* |
|---|---|---|---|---|---|
| CA (months) | 76.4 | 75.1 | 75.5 | 2.26 | Nonsignificant |
| Pintner MA (months) | 77.1 | 81.0 | 78.0 | .76 | " |
| Thurstone Pattern Copying | 10.1 | 9.9 | 7.7 | 1.88 | " |
| Thurstone Identical Forms | 14.3 | 17.3 | 15.7 | 2.67 | " |
| Metropolitan Readiness Test (Total Score) | 55.0 | 62.0 | 55.6 | 1.34 | " |
| Murphy-Durrell Learning Rate | 10.1 | 10.7 | 9.5 | 1.01 | " |
| Allyn and Bacon Pre Reading Test | 61.5 | 65.7 | 61.0 | 1.70 | " |

*F .95=3.55, F .99=6.01 with 2 and 18 degrees of freedom.

Table 2 contains the results of the analysis of variance of the *Stanford Achievement Test,* Primary I Battery, the Allyn and Bacon *First Reader Test,* and the San Diego *Pupil Attitude Inventory.*

It is apparent from Table 2 that the analysis indicates no differences in achievement or attitude toward reading across the treatment groups. However, on one subtest of the Allyn and Bacon Test, Consonant Blends, a difference is indicated at the .025 level.

An analysis of the results of the Gates, Fry, and Karlsen tests, administered to the randomly selected subsample indicated no differences. However, significant differences in accuracy of reading and rate scores of the Gilmore were noted.

Further study of the available data reveals a very wide range of mean scores for the post tests within each treatment group. For example, the means for the *Stanford Achievement Test,* Primary I Battery, Form X, Paragraph Meaning, in the treatment group using the Ginn Basal Readers were 20.4, 16.9, 18.3, 22.7, 27.1, 25.0, 26.5; the means for the same test for the treatment group using the Bloomfield-Barnhart Linguistic Materials were 10.8, 10.2, 8.2, 16.8, 15.2, 25.5, 19.6; while the means on this test for the treatment group using the *Structural Reading Series* were 10.5, 13.2, 17.9, 15.2, 20.1, 19.1, 29.6. By inspection it would appear that the teacher variable was of significant importance. A statistical analysis of these differences is now being carried out.

The data also yields interesting information related to the performance of boys. For example, on the Word Reading

TABLE 2
RAW SCORE MEANS OF CLASSES AND RESULTS OF THE ANALYSIS OF VARIANCE ON SELECTED POST TEST MEASURES

| Variable | Let's Read N=7 | Ginn N=7 | Structural Reading Series N=7 | F | Significance Level* |
|---|---|---|---|---|---|
| Stanford Word Reading | 18.2 | 21.1 | 21.3 | 1.23 | Nonsignificant |
| Stanford Paragraph Meaning | 15.2 | 22.4 | 17.9 | 3.07 | " |
| Stanford Vocabulary | 21.7 | 24.8 | 21.9 | 1.39 | " |
| Stanford Spelling | 9.8 | 13.3 | 10.8 | 1.36 | " |
| Stanford Word Study Skills | 35.4 | 41.0 | 38.7 | 1.64 | " |
| Allyn and Bacon First Reader Test | 82.6 | 95.6 | 90.0 | 2.27 | " |
| San Diego Pupil Attitude Inventory | 18.8 | 18.0 | 18.4 | .42 | " |

*F .95=3.55, F .99=6.01 with 2 and 18 degrees of freedom.

subtest of the Stanford the mean raw score for boys is 19.8, for girls 20.7. When these means are inspected, dividing the population into high, medium, and low mental ages, the high boys have a mean of 24.66, girls 24.43; medium boys 19.28, girls 20.10; and low boys 15.08, girls 14.44. While an analysis of the significance of these differences is not available, it seems reasonable to assume that boys did not achieve differently than girls on this subtest of the Stanford. Similar inspection of other post test results suggests that boys were not different in their achievement from girls.

A full report of the results of this study will be filed with the U. S. Office of Education and other articles will appear in various journals during the next year.

REFERENCES

1. Russell, David H., and others. Ginn Basic Reading Series. Boston: Ginn and Company, 1964.
2. Stern, Catherine, and others. Structural Reading Series. Syracuse, New York: L. W. Singer Company, Inc., 1963.
3. Bloomfield, Leonard, and Barnhart, Clarence L. *Let's Read*. Bronxville, New York: C. L. Barnhart, Inc., 1963.
4. *Brief on the Ginn Basic Readers, Revised*. Boston: Ginn and Company, 1961.
5. Stern, Catherine, and others. Structural Reading Series, *Book A, Teacher's Edition*, 5. Syracuse, New York: L. W. Singer Company, Inc., 1963.

707.

# 6. Factors in Predicting Children's Success in First Grade Reading

NICHOLAS J. SILVAROLI
Arizona State University

THE MAJOR purpose of this study was to determine if any combination of the readiness factors of: mental age, auditory discrimination, visual discrimination, letter identification, social class status, and maternal need-achievement could be used, prior to a formal program of reading instruction, to predict probable success in reading. A second purpose was to determine the relation between maternal need-achievement and success in reading of first grade children.

## Procedures

During May, 1962, the auditory and visual discrimination subtests of the Sheldon (6) Pre-Reading Test were administered to all 600 children attending kindergarten in the five public elementary schools in West Babylon, New York. Of this group of kindergarten children, only 475 appeared in the first grades the following academic year. Community mobility and the elimination of children with various problems accounted for the loss of 125 children. The technique of random selection was used, and a sample population of 87 first-grade children was obtained.

Each child was given the Durrell (1) Informal Test of Upper and Lower Case Letter Identification and the Otis Quick-Scoring Mental Ability Test: Alpha Short Form (5). The Warner (7) Index of Status Characteristics was used to obtain a quantitative measure of social class status for each child in the sample group.

The mothers of all children, in the sample, were given the McClelland (4) n-Achievement Test. In responding to this measure, each mother created "imaginative" stories from four separate TAT pictures (Picture number 7BM, 8BM, 2 and 7GF). The result was then analyzed to obtain a measure of the mother's need-achievement.

The Gates Primary Reading Test: Form 3 (2) was administered to the sample population of children in March, 1963. This measure served as the dependent or criterion variable on which the six independent reading readiness factors were intercorrelated.

The statistical technique of multiple correlation was used to determine the coefficients of multiple correlation for various combinations of these six readiness factors for both the boys and the girls. This technique made it possible to determine what factors were most likely to predict first grade reading achievement scores. After these factors were identified, regression equations were developed for both boys and girls, making it possible to use individual raw scores in the prediction of first-grade reading achievement scores.

## Results

It was found that the multiple correlations for all six factors were higher than the single factor of letter identification for both boys and girls. However, a test of the significance of the difference between the highest multiple correlation for six factors (Boys Multiple r .651—Girls Multiple r .786) and the single factor of letter identification (Boys r .550—Girls r .716) revealed that, for both groups, the differences between these extreme values were not significant.

The factor of maternal need-achievement yielded low positive correlations of .254 for the boys and .187 for the girls with the criterion, reading achievement. However, these low positive correlations were found not to be significantly different from 0.

The regression equation used to predict a raw score value on a reading achievement measure ($X'_1$), for any given individual in this sample population, has the general form as reported by Guilford (3).

$$X'_1 = a + b_1 X$$

a—A constant, computed from the data
$b_1$—Weighted value for the factor of letter identification
X—Raw score, letter identification

From such an equation we can predict reading achievement scores for both boys and girls prior to formal reading instruction.

## Conclusions

This study indicates that a measure of letter identification, upper and lower case letters, can be used to predict probable success in first grade reading. It appears to be of no value to add the factors of mental age, auditory and visual discrimination, social class status and maternal need-achievement scores for first grade boys and girls.

The fact that a letter identification measure can be used to predict reading achievement scores for a group of first grade children, should in no way be construed to mean that the ability to identify upper and lower case letters is the cause of success or failure in reading at the first grade level. The ability to identify letters appears to be a reflection of certain specific verbal experiences which the child may have had prior to his entrance in school. Therefore, it is not believed that specific instruction in letter identification in kindergarten or first grade will satisfy the need for those verbal experiences which appear necessary for success in first grade reading.

## REFERENCES

1. Durrell, Donald D. *Improving Reading Instruction,* 2nd ed. New York: World Book Company, 1956, pp. 55-56. 298.
2. Gates, Arthur. *Gates Primary Reading Test.* New York: Bureau of Publications, Teacher's College, Columbia University, 1958.
3. Guilford, J. P. *Fundamental Statistics in Psychology and Education.* New York: McGraw-Hill Book Company, 1950. p. 428.
4. McClelland, David C. *et al. The Achievement Motive.* New York: Appleton-Century-Crofts, 1953.
5. Otis, Arthur S. *Otis Quick-Scoring Mental Ability Test: Alpha Short Form.* Yonkers-On-Hudson, New York: World Book Company, 1944.
6. Sheldon, William D. *et al. Sheldon Reading Test: Pre-Reading.* Boston: Allyn and Bacon, Inc., 1963.
7. Warner, W. Lloyd, *et al. Social Class in America.* Chicago: Science Research Associates, Inc., 1949, chap. IX.

708.

228.

# 5. Developing a Scale to Determine First Graders' Attitudes Toward Reading

542.

KENNETH J. SMITH
Illinois State University
and JOAN C. SEIFERT
Kent State University

FOR SEVERAL years, a growing number of research studies has attempted to determine the most efficient methods of



teaching reading skills. Some researchers have concluded from their results that one method or another was superior and therefore should be adopted. One wonders whether a major factor has been omitted. Have we really attained a desirable objective if, as a result of our skills development program, a first grader has learned to dislike reading?

The most common practice in conducting research in first grade reading has been to draw conclusions from data derived from an achievement test given late in the year. This can yield very superficial results, for our ultimate objective is not merely to develop first grade reading ability, but rather mature reading ability. The results are deceptive, then, in that a method may show superior skills development (on a first grade level), but in the meantime may have inculcated such unfavorable attitudes toward reading that the child will do as little reading as possible. It is a cliché to say that one learns to read by reading, but it is surely true that the child who has learned to dislike reading has little chance of developing into a mature reader.

## Development of the Scale

During the 1964-65 school year, under the auspices of Kent State University, we conducted a comparative study of the effectiveness of certain approaches to the teaching of reading in first grade. This study was carried on in the 22 first grades in the public schools of Massillon, Ohio. In order to provide an indication of the attitudes which were developed as a result of these approaches to teaching reading, we developed an attitude scale.

We considered a number of types of scales, and seriously considered the use of some projective technique such as incomplete sentences or pictures. We rejected these techniques for several reasons. First, projectives probably are too complicated for use in the first grade classroom. Also, scoring would likely be difficult and of doubtful validity. Finally, such complex procedures probably are not necessary for most six-year-old children. Those who have worked with young children know that they can be embarrassingly honest without the need for subtlety.

We decided, then, that the most fruitful approach would be to devise a group of statements which would be indicative of factors associated with attitudes toward reading. In order to avoid complication, we used statements which could be responded to with a yes or no answer. A large number of statements were prepared, largely by Miss Seifert, with the assistance of Mrs. Mary Boehnlein, and these were then administered to the first graders in the University School of Kent State University. As a result of this pilot administration, a group of 25 items was chosen as being correctly understood by the children and having sufficient surface validity and reliability to be used in the larger study in Massillon.

A preliminary set of directions for administration had been prepared for the pilot administration. Before final administration, however, it was necessary to devise more complete and dependable directions. This was done with the cooperation of Dr. Philip Merrifield, Director of the Bureau of Educational Research, Kent State University.

The final form was administered to 549 first graders in Massillon, Ohio by Miss Seifert and Mrs. Boehnlein. Answers were indicated by the child by merely circling "yes" or "no" after each orally administered statement.

## Statistical Analysis

Analysis of the results of this administration was completed by Dr. Philip Merrifield, Director, and Mr. R. G. Frankiewicz, Graduate Assistant, Bureau of Educational Research, Kent State University. Factor analytic methods were used to determine inter-item correlations. Three factors were identified as follows: (1) "liking for reading," (2) "confidence in reading," and (3) "preference for oral reading." The factor "liking for reading" included 15 items with a reliability of 0.71. The analysis was reported in detail at the 1966 Convention of the Council for Measurement and Evaluation in Chicago.

No claim is made that this is a highly refined instrument. On the contrary, the test is still in the process of development. We have evidence that it is a useful measure, particularly for research purpose.



We hope to add to its reliability and provide sufficient standardization so that it may become a useful tool for the classroom teacher.

## Uses of an Attitude Scale

As indicated above, a scale to determine children's attitudes toward reading should have great value to reading researchers. No study of children's reading which ignores their attitudes can be considered really complete. We hope that we can help fill this void.

The measure should be very useful in the evaluation of the effectiveness of a school's reading program. School administrators, supervisors, and teachers surely would like to know what kinds of attitudes are being developed by their schools' reading programs. This may, of course, include the evaluation of materials.

However, the most valuable application of such a scale should be as an aid in the individual diagnosis of reading difficulties. The effect that a dislike of reading has upon the development of skills has been observed by all of us. Breaking the vicious cycle of poor attitudes and underdeveloped skills has been a difficult and continuing problem. More specific information concerning the attitudes should be very helpful.

## Summary

The need for a scale to determine children's attitudes toward reading seems to be evident. We believe that we have made promising progress in the development of such a scale. When we can refine the instrument, it should be of notable value to researchers, administrators, teachers, and clinicians.

709.

229.



competencies grow out of and are peculiar to the subject matter involved.

Reading materials in the social studies and literature are wide and varied. In the social studies, they include textbooks, encyclopedias, newspapers, magazines, biography, fiction with authentic settings, and appropriate reference books. In literature, the pupil reads such materials as literary anthologies, supplementary and enrichment readers, a variety of library books, magazines, reference materials, collections of poems, and short stories.

One of the major problems teachers encounter is helping children to select materials suited to their reading levels. Teachers cannot depend upon one textbook for all pupils in the social studies or in literature. They know that up to one fourth of a typical class at fourth-grade level or above cannot read text or other material written on a difficulty level in keeping with the grade in which they are placed. Before teachers can do much about teaching the specialized skills, they must make certain that the materials are not too difficult.

The remainder of this paper will be devoted to a discussion of some selected specialized reading competencies necessary for effective reading in social studies and literature. Most of the competencies selected for discussion apply to both subject areas. In the discussion that follows the assumption will be made that the pupils being taught the reading skills in social studies and literature are being taught them in materials they *can* read.

**1. Mastering the special vocabulary.** In reading history, children encounter such words as *citizen, democracy, republic,* and *settlement.* They turn to a selection in geography and meet such words as *island, continent, latitude,* and a host of names of places, many of them difficult to pronounce. They encounter words such as *poem, novel, article,* and *prologue* in literature.

Teachers in social studies and literature are responsible for teaching these special vocabularies. Leaving the development to chance will not get the job done. The teachers must first identify the special vocabulary important enough to be taught. They must next set up situations

## 4. Developing Reading Competencies Through Social Studies and Literature

I. E. AARON

Reading in social studies and literature involves more than a mastery of basal reading skills. To be sure, the fundamental skills and abilities are necessary for all reading, but each content area demands additional competencies. These

710.

that will assure the students' learning of the vocabulary, and, finally, they must check to make certain it has been learned.

**2. Building adequate concept background.** Even though the children recognize the individual words in a paragraph or longer selection, they sometimes are unable to interpret them as the writer intended. The concept load in the social studies and in literature presents problems for some students. We get *from* the printed page in proportion to what we take *to* the printed page. The reader who has the best background, other factors being equal, will get the most from his reading.

The alert teacher of literature or social studies anticipates meaning problems the reader is likely to encounter and helps him to build the background needed for adequate understanding.

**3. Reading the specialized materials.** Reading a factual discussion about the life of Edgar Allan Poe is quite different from reading one of his poems. Getting the meaning from a book-length novel differs from understanding and enjoying a short story. Reading a geography text and a fable involves some reading skills that are similar, but reading in each type of material also brings into use skills peculiar to that particular kind of reading matter. Purposes for reading each would also differ, thus bringing into play different reading competencies.

Teachers in social studies and in literature have obligations to teach the students how to read their subject matter. The English teacher in the junior high or high school, for example, needs to help the student to understand what is involved in reading a play. Here the reader sets the stage in his own mind. The teacher may ask a good reader to read a poem aloud while the class members listen to the rhythm. Or a symbolic poem may be discussed first from the standpoint of literal meaning and then from the symbolic viewpoint. A civics teacher may suggest a survey, question, read, recall, and reread approach to the text. If there are any best ways of reading the materials, the teacher must teach them to the children.

Among the specialized materials of each subject are the various reference aids in that particular content area. Some of these are common to more than one subject-matter area, while others are limited in their usefulness to one subject field only. Mastering the use of these reference aids leads the child into independence in his reading and studying. Pupils should be taught how to use map and illustrations lists, the card catalogue, encyclopedias, books such as *The World Almanac*, the *Readers' Guide*, biographical dictionaries, the atlas, and any other special reference aids available for their use. Commercial materials for helping the teacher to develop the use of reference materials are now available at most grade levels. However, much of the teacher's instruction in the use of reference aids will come along with actual experience in the use of these aids.

**4. Drawing conclusions and getting implied meanings.** Getting the literally stated facts is only a part of the job of reading. The good reader in the social studies and in literature can draw intelligent conclusions from the facts, and he can read between the lines. He brings his own experiences with him to the printed page and gets accurate meanings beyond those stated in the selection. The good reader thinks as he reads. He "feels" with the characters in a story and can recognize the relationships between characters.

The pupil reads in terms of the questions he is asked by the teacher. If the questions are strictly factual and involve no real thinking, the pupil will learn to read for facts—and do very little real thinking in which he uses the facts. On the other hand, if the teacher asks questions involving thought along with the facts, the children will think as they read.

When children have been reading to answer factual questions only, they often appear lost if confronted with questions demanding thought. A gradual process must be followed in leading them toward competency in this area.

**5. Reading critically.** Children sometimes develop the impression that "it's true because it's in print." Such chil-

dren may grow up to be gullible adults. In a democracy it is extremely important that citizens learn to evaluate that which they read. Reading critically is an instructional goal as early as the first grade. This lays the foundation for critical reading in the social studies and in literature.

Events occurring without plan in the classroom offer some opportunities for developing the ability to read critically, but planned instruction is also necessary. When children discover conflicting statements in different books, or in the same book, and call these to the teacher's attention, a natural situation exists for furthering this all-important ability. However, the questions teachers ask are again important in determining how children read. Lead children into evaluating what they read, and they are likely to continue it into adult life.

The good reader makes use of his experience background to evaluate what he reads. He distinguishes the real from the make-believe and separates fact from opinion. He does not question for the sake of questioning, but he questions in order to be accurate in the information he obtains.

**6. Understanding time sequence and the relationship of cause and effect.** So much in comprehending the full significance of history depends upon an accurate concept of time and the cause and effect relationship between events. This competency is also important in literature. The time line is a useful technique for charting events in time. This ordering of events in terms of their occurrence aids in understanding the relationship between cause and effect.

Establishing cause and effect relationships goes beyond *who, when, what,* and *where. How* and *why* are involved. The teacher's questions will often determine whether the child considers the *how* and the *why*.[1]

**7. Reading maps and globes.** Children need to know what maps and globes are and how they are made. Among the many understandings they must develop are the special terms associated with maps and globes (*latitude, longitude, equator,* and the like), the purpose of the grid system, the purpose of a North and South pole, distortions caused by attempting to portray the earth's surface on the flat surface of the map, the legend, the symbols used, and the meaning of the various colors used.

An incidental approach will not get the job done adequately. Lessons should be planned to teach each of these skills, and once competency in map and globe reading is developed, the stage must be set periodically for use of this competency.

**8. Reading and enjoying poetry.** Children of all ages need to know how to read poetry and to enjoy it. Some classrooms have not given enough time to poetry and, hence, some children do not enjoy it. By selecting interesting and appropriate poems, the teacher can lead even the most reluctant pupil toward appreciation and enjoyment of verse. Children like poems with a strong beat of rhythm and with meanings they can easily grasp. Humorous poems may serve as a starting point for the child or the adolescent who thinks he does not like poetry. The teacher needs a file of poems handy so he can use the appropriate poem at any time.

**9. Interpreting figurative language.** In the intermediate grades, children encounter more and more instances of words carrying figurative rather than strictly literal meaning. Figures of speech are used both in social studies and in literature. Children often meet metaphor, simile, hyperbole, and personification. They need to recognize these for what they are, to understand their figurative meanings, and to appreciate their value in written and oral expression.

**10. Learning to enjoy reading.** Enjoying reading, though not a skill, is one of the most important factors in reading. Children may read well from a skills standpoint and still not read unless they are forced to do so. We must teach reading skills in such a manner that enjoyment of reading is not sacrificed.

Parent and teacher interest in reading

[1]Mildred A. Dawson and Henry A. Bamman. *Fundamentals of Basic Reading Instruction.* Second Edition. New York: David McKay Company, Inc., 1963. p. 271.

712.

govern in large part the development of the child's interest and enjoyment in reading. If parents and teachers enjoy books, children are more likely to enjoy them. The teacher who dislikes reading is not likely to do much toward developing permanent reading interests in others.

In both social studies and literature, reading offers adventure, challenge, information, and enjoyment to the child. We, as teachers, are obligated to help children to get the most from their reading by helping them to develop fully all of the special competencies needed in these two important content areas.

713.

230.

Vol.7, 62



# 16. The Influence of Indefinite Terms of Time and Space on Comprehension of Social Studies Materials

VAL E. ARNSDORF

Reading social studies materials is one of the many activities children engage in to acquire further understandings of the social studies concepts and generalizations. The extent to which a child's understanding is enriched as a result of reading is obviously dependent upon multiple factors. Among the more important of these factors are the child's interests, mental capacity, experiences, and command of the language. Each factor is significant independently and merits the attention of the teacher in the instructional program. However, the interrelationships among these factors with the resultant influence on the learner's understanding also need to be considered in planning for the teaching-learning environment.

Closely related to each of the previously mentioned factors is the development of an adequate vocabulary. While the acquisition of vocabulary is only one part in the process of understanding what is read in the social studies, most will agree it is a fundamental step toward improving reading in the social studies program. Further indication of the importance of vocabulary is presented in research reports of the relationships between vocabulary and achievement in content subjects. Even though these relationships have been reported and do merit attention, the magnitude of the correlation coefficients provides evidence that vocabulary development alone will not assure the student success in the social studies. Other variables must be provided for to promote the learner's growth in this area.

The nature of the meaning attached to printed symbols encountered in the social studies will therefore be subject to considerable variation as these factors influence the students. Each individual must select from his own repertory meanings which are appropriate in terms of the context in which ideas are being presented, the purposes established for reading, the child's abilities, and his previous experiences with the terms and subject matter.

For purposes of discussion and instruction, vocabulary taught in the social studies may be classified into three categories: (1) technical or specific terms— included here are the terms unique to the social studies—the names, places, and events essential to this area; (2) relatively common terms that take on specialized meaning in this context—examples such as mouth, bay, sound, divide, bank, and current are readily found in basal and supplemental materials; and (3) indefinite terms and expressions—attention is given here to those terms with no clearly defined meanings including high, many, years ago, low, large, adequate, and others.

To expect children to comprehend the materials presented without a clear understanding of the vocabulary used is a rather dangerous assumption. Accurate interpretation of social studies content is dependent upon the child's ability to select the *one* correct meaning appropriate for that context. In many cases, the context which should provide helpful clues to the reader is not clear. Teacher and pupil attention is generally centered on the presentation and teaching of technical and relatively common terms with specific meanings.

The extent and nature of time and space terms found in basal social studies materials have been indicated in a previous study. Results from the investigation show that the numbers of terms per readability sample (approx. 100 words) range from samples that do not contain either time or space words to a high of twenty-six per sample. Low correlation coefficients (40 of the 50 reported are .30 or less) indicate the limited relationship between the number of time and space terms and the difficulty of the selection as determined by the readability estimates. Classifying these terms into two categories, definite and indefinite, disclosed that nearly 80 per cent of the time terms and over 90 per cent of the space terms found could be considered indefinite.

In an attempt to determine whether these (indefinite) terms affect children's understanding of social studies materials, two selections from basal textbooks were presented to four classes from each of the intermediate grades. Each of the selections

[redacted]. 714.

was randomly distributed in two forms to the students: form "A" as it appeared in the basal textbook, and form "B" in an "adjusted" or rewritten form with the indefinite expressions replaced with a more specific and concrete vocabulary. Open-end questions were used to determine the pupil's understanding of vocabulary and content. Fifteen classrooms in three schools totaling 412 children were included in the study. Of this number, responses from 320 pupils in twelve classrooms were collected in written form and the remaining 92 tape recorded. Average vocabulary and comprehension scores from the Gates Reading Survey for each grade group were approximately one grade level higher than the national norms reported in the test manual. In no case did a class average on the two tests fall below the reported norms.

It is recognized that scores on reading vocabulary and comprehension tests do not provide a firm basis for predicting success in the social studies. However, they do provide some insight into the reading capabilities of the children involved and their potential for meeting social studies materials.

The procedures used initially in the study included the random distribution of materials to a class with the children writing their answers. *No* time limits were set for either reading the selection or answering the questions. Papers collected were analyzed for correct and incorrect replies. Data analysis included tests of mean differences between form, sex, and grade with reading comprehension and vocabulary scores controlled. In each of the comparisons tested, the differences between the mean scores were *not* significant except differences between grade level performances.

At this point of the study, children's understanding of social studies materials did *not* appear to be affected by the use of indefinite or definite terminology. However, and perhaps more important, while the analysis did not clearly answer questions concerning children's ability to comprehend the social studies content, it did indicate the limitations in their understanding.

Procedures used to collect data for the study were altered at this stage to overcome some of the limitations that might be attributed to the use of written responses. One additional classroom from the fourth, the fifth, and the sixth grades was selected, with the children interviewed individually and tape recorded. The recordings were analyzed and results tabulated to supplement the information gathered through the written responses collected earlier.

Similar results were noted. Differences between the responses of the "A" and "B" groups and between boys and girls were not significant. Whether the children read the materials as presented in the basal textbook or the materials rewritten to reduce the number of indefinite time and space expressions seemed to have little effect on their performances. Again, differences were significant between grade levels and these differences appeared to be greater between grades five and six than between grades four and five. Although in an item by item examination of the results, the variability found within each class was greater than the variability found between the grades.

Both procedures used in administering the exercises yielded similar results in the comparisons studied. However, the additional information made available through the tape recordings was of equal or greater interest. The recordings made it possible to investigate more thoroughly the nature and depth of the children's understandings than was possible in the written responses. Children were given the opportunity and encouraged to discuss, explain, elaborate and clarify concepts and expressions during the course of the interview.

The average number of correct responses, while slightly larger, remained basically unchanged from the written performances. The number of errors and misconceptions noted increased. The children seemed willing to express themselves even though some were skeptical of the accuracy of their comments.

The children's knowledge, indicated by both recordings and written responses of the words, expressions and concepts found in the social studies was cursory. While sixth graders responded more accurately and extensively than fifth, and fifth graders more than fourth, at each level acquaintance rather than comprehension

715.

231.

## 5. Developing Reading Competencies Through Mathematics and Science

HENRY A. BAMMAN

Children and youth in all levels of American schools are being encouraged today to include in their programs of study an increasing emphasis upon science and mathematics. This emphasis has arisen partially because of the strong public interest engendered by modern nuclear discoveries and space developments and partially because of the shortage of personnel for positions in science and mathematics. We have made great strides in developing modern curricula for these two important areas; however, teachers everywhere are increasingly concerned with the lack of reading competencies of young people in both science and mathematics. Despite a strengthening of programs for developing basic reading skills, observable in most schools of our nation, we have made little progress in training teachers to teach specific reading skills for the content areas.

There are several reasons why reading in science and mathematics is more difficult than the reading in which the child normally engages during the first three or four years of his school life. The materials which we use for the teaching of fundamental skills is usually narrative in nature, and the young reader becomes accustomed to description, plot, characterizations, and definite patterns of sentence and paragraph construction. Let us examine some of the reasons why reading for the content areas, such as science and mathematics, is difficult for our students.

1. Ideas are frequently more complex, and there is little control over the *number of concepts* introduced on a page or within a chapter of science or mathematics.
2. The vocabulary is specific to the content area. Very often technical terms are encountered in a specific context and those same terms may not be repeated.
3. In both science and mathematics, the reader is required to relate his previous experience and knowledge to the reading task at hand; concepts are developed on an ascending scale of difficulty.
4. Wide reading, particularly in science, is often demanded from a variety of sources — sources in which the readability may vary dramatically.
5. Inter- and intrarelationships in mathematics and science are numerous and complex. Relationships must be recognized by the reader if he is to understand what he reads.
6. The reader is required to read critically; despite the fact that science and mathematics are regarded as "exact" sciences, the reader must judge the pertinence, authenticity, and value of much of what he reads in these areas.
7. A mastery of study skills (use of graphs, tables and charts; use of reference materials; and the use of textbooks) is essential for efficient reading in these content areas.
8. Finally, a wide variety of materials of different levels of reading difficulty is difficult to obtain for both science and mathematics, particularly in the latter area.

**Determining the difficulties.** It would be both foolish and impractical to point out the difficulties of reading in content areas unless we could suggest means of improving the instruction in our classrooms. A beginning may be made by

assessing the difficulties which our students have in either of the areas of science or mathematics.

Early in the school year the teacher should take inventory of the study and reading skills of the students, as well as ascertain the various students' backgrounds in the content areas. Standardized tests, informal tests and checklists, and discussions may reveal what students' reading and study habits are, what vocabulary has already been developed, and which areas of the curriculum have particular appeal. Further, the teacher should observe the reading of his students in the textbook and watch for obvious signs of difficulties in word attack skills, vocabulary, comprehension skills, and study skills.

Students who are suspected of having difficulty with basic skills should receive additional instruction during the regular reading period; it is not impractical to suggest that much of that instruction should be given through the use of science and mathematics books, rather than the regular developmental reading books. For students in junior and senior high schools, the *Be A Better Reader*[1] texts provide excellent practice materials for developing skills in reading in science and mathematics.

**Developing vocabulary.** The vocabulary of science and mathematics is often much more specific, more descriptive, than vocabulary found in other content areas. However, the greatest difficulty in learning such specific terminology seems to lie in the inability of many students to apply a term to a process, a classification, or a broad concept. Many words need special attention, since they take on new and different meanings when used in science or mathematics. For instance, the words *product, rate, base, interest, root,* and *literal* are mathematics terms which have different connotations in other areas. Too often writers of textbooks introduce technical vocabulary under the assumption that the simpler phases of the subject have already been mastered by students. Teachers may make these same assumptions, and the responsibility of introducing technical terms and relating them to processes or classifications is definitely a major task for the classroom teacher.

An example of one means of developing vocabulary in science and mathematics, using knowledge of structural analysis, is derived from the Greek and Latin terms for *one*. The Greek *mono* in biology is found in *mono*cotyledon; chemistry, *mono*mer; physics, *mono*chromatic; and in mathematics, *mono*mial. The Latin equivalent, *uni* may be *uni*valve in biology; chemistry, *uni*valent; physics, *uni*ts; and in mathematics, *uni*on. The use of prefixes, suffixes, and root forms may be one of the richest sources of word knowledge in these content areas.

**Reading for comprehension.** An integral part of reading for science and mathematics is the interpretation of problems, preceded by precise, methodical reading. The student must learn that almost every word is crucial to complete understanding of a problem or a process. Recognizing all the words, applying their specific meanings to the problem at hand, and sensing the relationships among the several conditions which are presented by the problem are prerequisites to actual problem-solving.

Careful questioning by the teacher may determine which students are grasping main ideas and essential details; some students are incapable of seeing relationships among the main ideas and need careful guidance in determining the main ideas and their supporting details. Students benefit from opportunities to restate main ideas in their own words and to state essential sequences of ideas. Listening and speaking become an integral part of good reading when the teacher involves the student in stating clearly and succinctly the ideas that have been encountered in reading.

Too often students are requested to work problems or perform experiments before they have carefully read them; efficient problem-solving is dependent upon deliberate, careful reading. The following suggestions will help:

1. Read the problem carefully,

[1]Nila Banton Smith. *Be A Better Reader*, Books I VI. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959.

718.

2. Reread it and determine what it is about (main ideas),
3. What are the conditions (details)?
4. What, exactly, are you asked to find? Do?
5. What is the order in which the conditions of the problem should be used?
6. What processes are required?
7. What is a reasonable answer?
8. Perform the necessary steps, compare with the estimate, and reread the problem if the answer seems unreasonable.

**Rate of reading.** So many of our students have been made aware of the necessity for reading rapidly. The amount of reading to be done in each day's work is increasing with each generation, and the availability of a wide variety of supplementary materials for each content area has emphasized the necessity for selecting wisely, skimming, and reading intensively. The student who reads science and mathematics must be prepared to make adjustments to the basic materials, both in terms of his speed of reading and his purpose for reading the material.

Reading in these content areas is often slow, deliberate reading. Skimming is seldom applicable as a skill, except in searching for related ideas. Directions must be read and reread, with attention directed toward the sequence of those directions and exactly what is demanded by each. Fortunately, many of the concepts of science and mathematics are both observable and demonstrable; many of the ideas are precise and easy to relate to laws and principles.

**Making assignments.** Certainly the idea of making a good assignment is not unique in science and mathematics. So much of what a student learns from day to day is dependent upon *how* a teacher assigns the work to be done. As it has been stated, there is a definite scale of difficulty in the curriculum of mathematics and science. Each new concept is built on previously developed concepts. Our students frequently do not establish essential relationships; they work from day to day, with little awareness of the effect of previous learning upon today's understanding of new ideas.

A major role of the teacher is to help students relate what *is* to be learned to what *has* been learned. Assignments in textbooks and related materials should include a careful statement of relationships, a review of what has been learned, and predictions of what is to be accomplished through further reading.

Mapping out a textbook or a chapter for a student is like preparing carefully for a trip. Hours of wasted energy and backtracking may be obviated by a carefully stated assignment, in which both students and teacher are involved.

**Use of diversified materials and activities.** Classroom teachers are certainly aware that our textbooks are not appropriate for all of the students in a class. This problem is compounded at higher levels of education, particularly in the junior and senior high schools, where the use of a single text is prevalent in science and mathematics classes, and where the range of reading abilities of the students may range all the way from third-reader level to the level of a mature adult.

Fortunately, the unit or project plan of teaching makes possible the diversity of materials, both in terms of interests and reading abilities of the students. A textbook is less essential when a broad unit is developed. However, in mathematics we are constantly confronted with the problem of a single textbook and virtually no supplementary reading materials. As a result, we must diversify the activities in terms of the abilities of the students. Oral reading of problems, discussions of problems, and numerous teaching aids are necessary if we are to involve all students in solving the problem at hand. Recent developments in materials for the teaching of mathematics have incorporated the use of multisensory approaches to learning.

**Summary.** Teachers and students in science and mathematics classes are involved in two vital processes: the development of knowledge of specific content, and the development of skills for lifelong acquisition of knowledge.

719.

Vol. 10, 1965

232.

## 2. The Study Skills in Mathematics

89.

MORTON BOTEL
Bucks County, Pennsylvania
Public Schools

OVER the past five years I have had the good fortune to work with a group of five mathematicians in the development of a program to improve the teaching and learning of mathematics for elementary school pupils.

Much of our attention has focused on approaches which improve the ability of pupils to study and to think.

The four major math study skills which we have identified and for which we have developed new or improved approaches are: (1) skill in relating mathematical statements to real world situations; (2) skill in dealing with open-ended problems; (3) skill in exploring and discovering patterns and in formulating the rule



of formation; and (4) skill in relating mathematical statements to physical models and representations.

In this paper only the first two problems will be explored. (Further development of these ideas can be found in *Math Workshop,* published by Encyclopedia Britannica Press, Chicago, Illinois.)

### Skill in Relating Mathematical Statements to Real World Situations

Over the years, "story problems" or "word problems" have been a source of vexation to many teachers of arithmetic, to many children—and to many parents. This activity, which properly seeks to relate the abstractions of mathematics to the world of events, often ends without a sense of accomplishment for anyone.

Such story or word problems are usually reserved for the end of a development, as a sort of test or exercise of the pupil's ability to "apply" an acquired knowledge of arithmetic.

### Headline Stories

When we notice a pattern repeating itself in the limited world around us—the world we can manipulate—we often use an expression in the language of arithmetic that points to that pattern, such as: $2+3=5$.

At this point we ought to direct children's attention to an application of this idea to the wide world of fact and fancy that they live in.

"Suppose this is a headline:"

$$2 + 3 = 5$$

"Tell a story that might fit such a title or headline," the teacher urges.

"There are five children in our family, two boys and three girls."

"Fine. Who has another story that would fit?" the teacher asks.

"I have three cookies out of the five I started with. I ate two of them."

"It's the second of December and my birthday is on the fifth. My birthday is in three days."

Each of these situations has within it the conditions we point to in the headline. Each of the story-tellers reveals that he is beginning to grasp the relationship between arithmetic and the real world.

The headline story is a handy device for eliciting such examples. Box in the mathematical expression and ask for fitting stories. Here are samples that are suitable at different levels of development:

| | |
|---|---|
| $7-3=$ | $19+\ \ =35$ |
| $8+\ \ -22=10$ | $\times 10=70$ |
| $\frac{1}{2}\times 314=$ | $4=15\div\ \ +1$ |

### Thought Starting Devices

Pupils may begin with examples that are on the dull side, such as, "There are 9 boys and 5 girls, or 14 altogether." Or, if a child prefers the original question form, he might change the story to, "There were 9 boys and some girls. There were 14 in all. How many were girls?" One way to help break children loose from parroting typical word problems is to write several beginning sentences or phrases on the board as "thought starters." For example:

$9+5=14$

a. "Harry and Jack captured some men from Mars . . ."
b. "Alice met the Mad-Hatter . . ."
c. "When the Pilgrims landed . . ."
d. "Mary is very fond of . . ."
e. "The telephone rang . . ."

Here is another thought-starter device teachers have found helpful. The children are asked to fill in a chart with numbers in two columns and words in a third. Completed, the chart might look like this:

| A | B | C |
|---|---|---|
| 7 | baseball game | (25) |
| (18) | a party | 15 |
| 5 | astronauts | 6 |
| 125 | (a trip) | 9 |
| 60 | setting a table | 40 |

"Select one item out of each column and weave them together in a brief story. Then write an appropriate headline in the language of arithmetic."

Here is a sample response:

$$25 - 18 = 7$$

720.

"After we had gone 18 miles on the way to the lake, we stopped for lunch. Since our house is 25 miles from the lake, we had 7 miles to go."

As children exercise their ability to *make up stories to fit headlines,* they begin to understand what goes on in the minds of others who make up *story problems.* The mysteries disappear. Once they can make up stories, children gain confidence that they can reverse the process. They begin to understand the relation between life situations and mathematical sentences. Teachers who have used this approach find pupils become enthusiastic about expressing a creativeness they never associated with arithmetic.

### The Reading Problem

Very often, *word problems* present a difficulty because the child's reading ability is not yet sufficiently developed. He struggles with reading the words; he is unsure; he is puzzled. In such a state of mind, he is not prepared to extract a mathematical problem from a set of words that are already a *reading problem.* The method we have been developing lays bare the connection between a mathematical sentence expressed in symbols and a life situation expressed in words. A pupil need not read at all to gain confidence in this area. Then when he is confronted with a situation in which his first task is to decipher the written language, he is better equipped to find the cues he needs to translate the situation into a mathematical statement. He has tackled two very different problems—but he has tackled them one at a time.

### Changing the Conditions

Further interest in the problem can be created by posing such questions as: "If we changed the story, how would we reflect the change in the headline? If we changed the headline, what changes would be required in the story?"

### Emphasis on the Total Situation

Note that in this approach the usual emphasis has been taken away from "the answer." The situation turns on the *mathematical headline,* or statement, and pupils create their own applications. The answer-oriented approach no longer preoccupies the attention of children and we see clearly ourselves that it wasn't only the answer we wanted—it was the whole mathematical statement.

### Skill in Dealing with Open-Ended Problems

In the past, word problems in arithmetic represented the total fare of problem solving experience. And we have already noted the staleness of the usual approach and have suggested ways of improving the connection between mathematical sentences and the real world.

We have further developed more interesting "open-ended" or "discovery" problems which primary grade pupils can tackle and which promote study skills and thinking ability. Many such activities follow under two headings: (a) Short open-ended problems, (b) Situations in which conditions can be investigated from many angles. In each of these situations, the answers are "less than obvious" and require real thinking and planning. Each calls for a series of responses best recorded in a table of some sort so that patterns can be noted more easily.

Here are examples of these kinds of problems:

a. *Short Open-ended Problems*

1) Dan had 6¢. If he spent ___¢, then he has ___¢ left. (Make a chart.)
2) There are 7 days in a week. (Pupils extend the story.)
3) Mary and Bill each had the same number of books. Draw a sketch to fit.
4) Harry had more blocks than John. Draw a sketch to fit.
5) How many different combinations of coins amount to 18¢?
6) Katie is 3 years older than Lou. If Katie is ___, then Lou is ___.
7) How many ways can you make 25¢ with an even number of coins? (An odd number?)
8) In how many ways can we arrange 12 cans in columns and rows?
9) I have coins worth 50¢ in my pocket. What can you say?
10) I gave the clerk a quarter. He gave me two coins as change. What can you say?
11) In how many ways can you make this sentence true using one odd and one even number: ___ + ___ = 10.

721.

12) Make up a time-saver chart for the movie cashier. Admission prices are 35¢ for children, $1.25 for adults.

13) Mother had three bills, one each for $1.00, $5.00, and $10.00 and three coins, one each for 10¢, 25¢, and 50¢. She gave Jill one of the bills and one of the coins. How many possible combinations could Jill get? How much is each combination worth?

b. *Situations in which conditions can be investigated from many angles.*

A different kind of open-ended problem is initiated by a sale situation—one in which pencils cost 5¢ each and pads of paper cost 9¢ each. The notice that limits a customer to not more than 6 of each introduces an unusual aspect that multiplies the interesting questions that can be asked.

"If Bill spent 45¢, can you be sure that he bought 5 pads of paper?"

"No," Sarah argues, "he could have bought 9 pencils at 5¢ each. That's 45¢." But after a moment's thought about the problem Sarah realizes that such a purchase is a violation of the terms of the sale which state: "Not more than 6 of any item to a customer."

Such situations can be varied at will, and the conditions can be investigated:

SALE

| Small Erasers | Large Erasers |
|---|---|
| 2c | 3c |

Limit: 2 of each to a customer

The results of these conditions can eventually be revealed rather easily in the following chart:

Notice that each possible purchase is unique. Had the limit been "3 of each to a customer," the situation changes: A purchase of 6¢ might consist of 3 small erasers or 2 large ones.

Small Erasers @ 2¢

| Large @ 3c | 0 | 1 | 2 |
|---|---|---|---|
| 0 | x | 2c | 4c |
| 1 | 3c | 5c | 7c |
| 2 | 6c | 8c | 10c |

What happens if the limit of "2 of each to a customer" applies only to small erasers? Now, 9 large erasers and 1 small eraser would cost 29¢. How else could 29¢ be spent? (There is no other way.)

Next, put back the limit of "2 each" on large erasers and lift it on the small erasers. Now, 9 small erasers and 2 large erasers would cost 24¢, but so would 12 small erasers and no large ones.

A more involved sale:

SALE

| Pencils | Erasers | Pencil Boxes |
|---|---|---|
| 5c | 4c | 25c |

Limit: 4 of each to a customer

These conditions are carefully selected, since the amount of any purchase will reveal the exact items included. For example:

32¢: 4 pencils and 3 erasers
33¢: 1 pencil box and 2 erasers
36¢: 4 pencils and 4 erasers

This kind of problem can be adapted in most grades simply by varying the number and price of the items.

Some children might make up their own sale conditions and explore the results of setting various limits on the number of items a customer may purchase. They will find surprises in store for them.

233.

Vol 9, 64

## 2. The Specific Reading Skills Necessary for Social Studies in the Elementary School

JEAN I. CAUDLE

THERE IS a close relationship between the reading skills common in the teaching of reading and the specific skills necessary in the content areas. In the social studies content, the reading skills necessary for effective understanding are much more complicated than the skills found in the basal reading materials. Children require guidance in the varied ways to use the specific skills in the present curriculum of our elementary school. Pupils cannot be expected to read with understanding in the content area unless they are competent in many of the essential reading skills.

### Word-Analysis Techniques

As children are required to read more and more in social studies, it becomes increasingly important for them to learn how to recognize new words without the aid of the teacher.

### Comprehension of the Common Vocabulary

A good general common vocabulary is necessary for the pupil to gain academic success in the social studies. The child experiencing difficulty in the basic sight vocabulary will have problems in understanding the content.



Some reading skills which must be adapated to the specialized nature of the social studies material and the unique purposes for reading in this content field are the following:

*The method used to recognize the way the material is organized.* The ability to organize material is important for the development of effective independent study. Many clues are provided by authors to equip the pupil for better sequential organization ability.

*Efficient ways need to be developed for comprehending the technical vocabulary.* A technical vocabulary will be achieved only through planned instruction on the part of the teacher. A direct and planned technical vocabulary does not just happen as a part of the basal reading program. It is encouraging to read how teachers are assuming more and more the responsibility for direct teaching of the technical terms in social studies.

*The student needs to adjust the rate of reading to the purpose.* The student who is flexible in the reading rate will have increased comprehension in reading. The nature of the content will determine the rate of reading. The teacher will find that instruction and practice in this area will be profitable.

*Locating and evaluating information is a valuable tool.* The child who is able to use the index of a book will find it valuable to develop this skill. Children's newspapers are a good source for the evaluation of information. Children frequently find this a good source of current information and sometimes more complete than a social studies text.

*Satisfactory comprehension of the material read is essential.* Pupils showing good comprehension in the basal reading text might not be successful in comprehension in the social studies. Teachers are aware that social studies should be given special attention.

*Ability to see relationships that are stated or implied is very important.* Practice should be given in finding the important as well as the unimportant information in a particular situation. Skill needs to be developed in finding what is essential to a given portion of information. In certain areas of social studies, time may be indicated through dates. In other areas



of the social studies, the answer may be suggested through implication. The cause and effect relationship is very important and a student should have directed reading to develop this ability. The student should be able to raise questions not specifically answered by the writer, but with some reading between the lines get a satisfactory answer.

*Ability to organize ideas is to be developed.* This is another area in need of special training. The ability to bring material together from various sources is of importance. The development of an outline is an effective way to achieve good organization. A good sequence of the events as they happen is important in organizing ideas.

*Ability to follow directions needs proper guidance.* One of the effective ways to learn to follow directions is to develop a good sequence of the task to be accomplished. This should improve with experience in this kind of assigned task. The activity assigned should be of high interest to the child. The student able to select the significant details is frequently able to develop in the ability to follow directions.

*Effective use of reference books is an important reading skill.* The ability to read various kinds of maps is an important skill, and the interpretation of charts and graphs is also helpful. The encyclopedia is becoming a part of the classroom instructional equipment and is recognized as an important learning tool in the home.

723.

234.

Vol. 10, 65

# 9. Verbal Problem Solving in the Intermediate Grades

303.

MYRON L. COULTER
Pennsylvania State University

ELEMENTARY school arithmetic programs have traditionally relied heavily upon textbooks as the sole resource of principle and practice for teaching fundamental operations and problem solving. All too frequently the verbal problems in textbooks place more emphasis upon computational operations than upon the problem solving process, which is largely a reading-thinking process. This latter statement was supported by a careful examination of the verbal problems in several currently used arithmetic textbooks which revealed these inconsistencies:

1. Many of the statements were phrased in such a manner as to obscure the real meaning of the problem.
2. In numerous cases key words such as *equal, shared equally, exactly,* etc., were omitted from the problem.
3. The reader was often forced to make risky assumptions as to what the author actually intended.
4. If the reader followed the problem literally, he might often arrive at an incorrect solution.
5. The reader was often required to supply important information which was missing from the problem.

304.

Based upon the above findings, the conclusions of a considerable volume of research and literature which indicate strong relationships between reading competence and problem solving, and the lack of systematic programs which provide reading instruction to improve problem solving competence, the present study was developed.[1]

## The Problem

The primary purpose of the investigation was to determine whether students in grades four, five, and six showed significant gains in verbal problem solving performance subsequent to special instruction in selected arithmetic-reading skills. A closely related purpose was to assess (1) the ability of the experimental teaching materials to provide for effective instruction in verbal problem solving, and (2) the ability of the experimental test instrument to measure children's competence in reading arithmetic problems.

## Procedures and Materials

A total of 78 intermediate grade classrooms in 13 school systems participated in the study. Thirty-nine fourth-, fifth-, and sixth-grade classes, consisting of 1008 children, followed the experimental program and 39 similar classes, with a total of 993 children, continued their regular arithmetic programs which contained none of the experimental procedures. The elementary supervisor in each system selected geographically separated control and experimental classes which were comparable in composition and which had, in his judgment, teachers of comparable competence.

Prior to the experimental instruction all classrooms were tested by the California Reading Test and the California Arithmetic Test batteries and the experimental RASP (Reading-Arithmetic Skills Program) Test prepared by the investigators. At the conclusion of the instruction period post-testing was conducted for all classes using alternate forms of the California tests and the original RASP Tests.

A series of twenty lessons, one 45-minute lesson per week, was taught by the experimental class teachers as an adjunct to their normal arithmetic programs. The lessons were standardized by the use of problem sets and teachers' manuals prepared by the investigators. Each child had his own workbook.

The lessons included two sets of verbal problems developed around 10 skill areas, those being: (1) Literal Meaning of Verbal Problems, (2) Understanding the Process to Use, (3) Vocabulary and Word Usage—Descriptive Words, (4) Vocabulary—The Interpretation of Procedural Terms, (5) Identifying Essential Information, (6) Supplying Missing But Available Information, (7) Identifying Statements with Missing Essential Information, (8) Understanding of Quantitative Expressions, (9) Reading Numbers of Greater Magnitude, and (10) Relating Problems to Everyday Life.

The first lesson of each two-part set was largely teacher-directed. The second lesson was self-study with teacher help when needed. The major purpose of the materials was to improve the reading-thinking process in problem solving. Since many of the problems had no quantitative solution, no attempt was made to improve computational skills, although these were measured by the California tests. Short standardized quizzes were administered after each four lessons as a means of review although the results were not included in the final data.

A careful effort was made to keep the readability and concept difficulty of the problems within the range of intermediate grade children and in line with the language level of arithmetic texts. At first, several fourth-grade teachers complained that the vocabulary was too difficult, but these complaints soon subsided and fourth-grade children performed surprisingly well with the materials.

The RASP Test, like the teaching materials, was keyed to the 10 skills areas

[1]Myron L. Coulter and Clyde G. Corle. *Reading-Arithmetic Skills Program,* Pennsylvania School Study Council, August, 1964.

724.

earlier identified. It consisted of 60 multiple-choice items which were coded to permit a factor analysis. The items contained characteristics comparable to the problems in the teaching materials, although the content was quite different.

## Results

The data from all tests were analyzed by the use of the *t* test for significance of differences in means. The following table shows the mean scores, gains, and *t* ratios for all subjects and all tests.

MEAN SCORES, GRADE PLACEMENT, GAINS, AND *t* RATIOS FOR 1008 EXPERIMENTAL FOURTH-, FIFTH-, AND SIXTH-GRADE PUPILS AND 993 CONTROL PUPILS

| Test | Experimental Pre-test | Experimental Post-test | Experimental Mean Gain | Control Pre-test | Control Post-test | Control Mean Gain | Experiment advantage | *t* ratio |
|---|---|---|---|---|---|---|---|---|
| Arithmetic reasoning | | | | | | | | |
| Mean | 27.1 | 32.4 | 5.3 | 28.0 | 32.7 | 4.7 | .6 | 3.078 |
| G.P. | 5.9 | 6.9 | 1.0 | 6.1 | 7.1 | 1.0 | .0 | |
| Arithmetic fundamentals | | | | | | | | |
| Mean | 31.6 | 44.9 | 13.3 | 33.2 | 44.2 | 11.0 | 2.2 | 6.293 |
| G.P. | 5.7 | 6.7 | 1.0 | 5.8 | 6.7 | .9 | .1 | |
| Reading vocabulary | | | | | | | | |
| Mean | 34.3 | 39.1 | 4.8 | 35.0 | 39.4 | 4.4 | .4 | 1.275 |
| G.P. | 6.2 | 7.0 | .8 | 6.4 | 7.0 | .6 | .2 | |
| Reading comprehension | | | | | | | | |
| Mean | 46.2 | 53.6 | 7.4 | 46.8 | 53.4 | 6.6 | .8 | 1.232 |
| G.P. | 6.2 | 7.2 | 1.0 | 6.4 | 7.2 | .8 | .2 | |
| RASP | | | | | | | | |
| Mean | 19.9 | 27.4 | 7.5 | 19.9 | 22.8 | 2.9 | 4.6 | 15.888 |

*t* ratio 1.960 significant at the .05 level of confidence
*t* ratio 2.576 significant at the .01 level of confidence

In all cases the experimental pupils outgained the control pupils. In three tests, arithmetic reasoning, arithmetic fundamentals and the RASP Test, the gains were significant at the .01 level of confidence. It may be noted in all pre-test means, with the exception of the RASP Test, the control pupils ranked higher than their experimental counterparts, yet on all post-test means the experimental pupils held the advantage. The highly significant experimental gain on the RASP Test was predicted since the test was similar to the types of problems in the instructional materials.

Analysis of the data by grade level revealed interesting differences. Fourth-grade experimental groups outgained the control groups on all tests although the control groups held a significant advantage on the pre-tests. On three of the five tests, arithmetic reasoning, arithmetic fundamentals and the RASP Test, the gains were significant at the .01 level.

Fifth-grade experimental groups also outgained the control groups on all tests, but were highly significant in arithmetic fundamentals and the RASP Test. The same was true for sixth-grade experimental groups.

At each grade level the highest mean scores were obtained from the reading vocabulary and comprehension tests and all gains favored the experimental groups. However, in no instance were the experimental group gains significant in reading.

A series of factor analyses of the results of all tests used in the study was performed to determine (1) which test factors accounted for the greatest variance in students' scores, (2) the effectiveness of the RASP Test in measuring the skills taught, and (3) the factors of the RASP Test which made the greatest contribution to the variance in test scores. The varimax rotation technique was used in the analysis.

The first analysis showed that 72.4 per cent of the variance in students' scores was accounted for by a general factor (often called the G factor) and was described as a general intelligence and verbal skills factor. It was most closely related with the test of reading vocabulary. The next highest factor which accounted for 9.7 per cent of the total variance was present to the highest degree in the RASP Test. Close behind was a factor strongly identified with the test of arithmetic fundamentals.

Further analyses of the RASP Test consistently singled out the items related to literal interpretation, selection of the solution process, and vocabulary as factors of highest influence in score variance.

## Conclusions

Children who receive special instruction in reading arithmetic problems appear to gain in both reading and arithmethic performance, and especially in arithmetic reasoning and fundamentals.

The skills instruction which appears to be most effective is closely related to vocabulary, the literal interpretation of problems, and selection of the proper solution process.

The experimental test contributed substantially to the measurement of the arithmetic reading competencies of intermediate grade children.

306.

725.

235.



ingly clear. It is that the teaching of reading skills and the teaching of subject matter are inseparably related. The studies show that merely the fact that a child reads well from a general reading text is no guarantee that he will successfully master the unique reading skills required of arithmetic, science, and the social studies. In other words, while the close relationship exists between good reading ability and success in the mastery of content, this is not an automatic coupling.

Studies such as those reported by Fay[1] and Artley[2] have shown that significant gains in achievement are obtained when special attention is given to the reading skills in arithmetic, science, and the social studies. So long as we are interested in improving teaching and learning, these words *special attention* retain their significance. They give the lie to any notions of a one-to-one relationship between general reading ability and achievement in the content areas, and they strongly imply that reading skills must be taught throughout the curriculum.

As we look further through the literature we may determine what are some of the common and unique skills in the various content areas. It becomes quite obvious that there is a need for stressing comprehension, vocabulary and word meaning, reading-study skills, the perception of relationships, and the development of experiential background for all subject-matter fields.[3,4]

Then there are more specialized skills such as map reading, locating verbal clues, and interpreting symbols. These skills are unique not because they are used only in one field, but because they are most often taught within a specific discipline.

In addition to the skills there is a noticeable difference in today's materials. The discovery of new knowledge and the

## 2. In the Intermediate Grades

### a. Changing Concepts of Reading Instruction in the Content Areas

MYRON L. COULTER

As one reads the research and literature related to the teaching of content at least one generalization becomes increas-

[1]Leo Fay, "Responsibility for and Methods of Promoting Growth in Reading in the Content Areas," *Better Readers for Our Times*, International Reading Association Conference Proceedings, vol. 1, p. 92, 1956.

[2]A. S. Artley, "A Study of Certain Relationships Existing Between General Reading Comprehension and Reading Comprehension in the Subject-Matter Areas," *Journal of Educational Research* 37:464-473, February, 1944.

[3]Leo Fay, "What Research Has to Say About Reading in the Content Fields," *Reading Teacher* 8:68-72, December, 1954.

[4]*Encyclopedia of Educational Research*, Third Edition, edited by Chester W. Harris, New York: The Macmillan Company, 1960, pp. 1122-1127.

726.

rearrangement of already established knowledge have revised old textbooks and written new ones. Likewise, the increasing emphasis upon reading has encouraged the flood of thousands of trade books and supplementary texts which are available at every turn. These and other developments have led to a jam-packed curriculum and a need for greater efficiency in teaching and learning. To further complicate the life of the teacher, studies are constantly identifying problems which daily confront us in the adequate use of teaching materials. An example is Mary Serra's review of surveys of elementary social studies materials, in which she concluded that (a) there is an excessive concept burden, (b) there is insufficient repetition of difficult and unusual concepts, and (c) that the development of concepts is made more difficult by too frequent use of indefinite terms.[5]

The findings of these and other studies are placing an increasing burden upon reading efficiency in the content areas, and point out the fact that teaching is not getting easier, in spite of improved techniques. It would not be so bad if a teacher could ditch the skills and rely upon one text, and it certainly would accomplish one thing. It would eliminate the pleasure and efficiency of learning.

### Reading and the Curriculum

There are many reasons why reading is so vital to learning, aside from the fact that it is the major tool for the acquisition of basic information. When we look at the responsibilities our culture has placed upon the schools we see an urgent demand for improving children's reading efficiency.

Today our schools are pressured with requests for teaching more content and teaching it more effectively. The need for better development of work-study skills was never greater. We are asked to know more about Johnny—to be able to diagnose his strengths and weaknesses for mastering content. There is greater desire for depth in understanding and more active pupil participation in the discovery of knowledge. There is a drive for creativity, critical thinking, and problem solving. We are at new heights in demanding better command of arithmetic skills, in probing new science concepts, and in developing international understandings.

Of course the teacher is responsible for providing the learning environment which will satisfy these demands, but the ultimate burden for accomplishing these tasks rests with the learner. No teacher can do these jobs for him, but all teachers can help equip him to do these jobs more satisfactorily. And the teacher who ignores the uncommon reading skills is leaving out a major item of his pupils' equipment.

It is interesting to note that the changing concepts of reading as described by Dr. McCullough and the changing concepts of the content areas are complementary. As in reading, the major emphases in the content areas cluster around the objectives of a better foundation of reading and thinking skills, more extensive and intensive reading, a variety of teaching and grouping techniques, improved materials and procedures in diagnosing pupil abilities and inabilities, inductive reasoning, and the judicious employment of a variety of materials. There is further agreement that it is exceedingly difficult, and just as undesirable, to label or identify any pure forms of organizational and pedagogical patterns. Also, we now more fully appreciate the child's abilities and realize that we have much to learn from him — from his background, from his thinking, his writing, his reading, and his doing. For too long we have overlooked our best teaching resource — our pupils. And any teacher who has not experienced the somewhat startling revelation that his kids have more to offer him than he has to offer them has not fully lived.

### Reading and Arithmetic

For more concrete illustrations of the changing concept let's look at the field of arithmetic. In the intermediate grades there is renewed emphasis upon the discovery of principles, the solution of verbal problems, the mental processes a child goes through in solving a problem, the social practicality of the content, and the processes of judging, estimating, and justifying the solution. The accent is on functional, timely, meaningful arithmetic. Instead of *dividing five boys into one*

[5]Mary C. Serra, "The Concept Burden of Instructional Materials," *Elementary School Journal* 53:275-285, 1953.

727.

*apple* we are now more concerned with how many and what kind of provisions are needed for a five-boy week-end camping trip.

Just as reading is an act of discovery so is the most profitable teaching-learning program in arithmetic. When youngsters are led to discover the basic principles through inductive processes the outcomes are more meaningful and longer lasting.

The solution of verbal problems has long been a matter of concern to arithmetic teachers. There is a need for direct attention to the structure of the problem statement, the terminology used, the perception of relevant clues, and the interpretation of the general sense of the problem. Placing emphasis upon careful reading will help to eliminate one of the major *gremlins* of problem solution — carelessness.

An interesting and often enlightening experiment in diagnosis is to have the youngsters verbalize or, even better, write out the steps and thinking procedures they went through in solving a problem. Talk about individual differences! They pop out all over the place when youngsters describe the various methods they used to get the *right* answer. And who can criticize them for the incorrect procedures if they come up with the correct solution? The point is that while there may be several methods of attack and solution, one or two may be more *efficient* than the others. And then the teaching begins.

As in reading there is a continuing need for group work of various types in arithmetic. Grouping for a single specific purpose, grouping which occasionally mixes the high and low ability levels, and grouping for purposes of discussing and completing the work in study guides, workbooks, project assignments, etc., each has a place in the instructional program.

### Reading and Science

Similar changes of concept surround the science content for the intermediate grades, except in many respects it is the teacher who is trying to stay abreast of his pupils.

There is certainly a remaining need for emphasis upon the natural sciences, but new dimensions are being added constantly. We are now in space with the astronauts, at super-supersonic speeds with the X-15 rocket plane, and in orbit with the Discoverers, Explorers, Echoes, and Sputniks. Within the span of ten years we have gone from the conquest of Everest to surfacing at the pole with the atomic submarine *Skate* and on to the fringes of outer space. The scope of modern science is frightening when thought of in terms of organizing a teaching program which leads to basic understandings of these technological achievements. The unanswered challenge facing us now is how to provide a program that is comprehensive, manageable, and understandable.

It is obvious that reading skills and interests play a major role in the science program. The mastery of the technical vocabulary and fundamental concepts of science content calls for a vigorous teacher-directed study program which includes word meaning, reference work, the relating of concepts, noting detail, following written directions, and grasping main ideas.[6]

Encouraging interest in wide reading is an important task of the teacher, especially in science. But possibly more important is the directing of already existent reading interests into the appropriate materials.

The present accent on science teaching has led to at least two interesting side effects with regard to reading. On the one hand volumes of children's science trade books are being published. On the other hand many teachers have retreated to the basic science text in order to ensure something other than an incidental treatment of content, and still others have moved into the text in order to ensure a fair, comprehensive, and I might add superficial, treatment of the many facets of the content. In either case, as a result of teachers' good intentions for meeting the demands of teaching more science, the program has often become a series of rather poorly taught reading lessons, ignoring the principles of both good reading and science skills.

The youngsters are reading the science trade books, often of their own volition. It is our job to capitalize upon this valuable asset and make it a part of the classroom instruction. This can be done through project work, discussions, inde-

[6] A. S. Artley, *op. cit.*

728.

pendent experiments, and individual assignments.

**Reading and the Social Studies**

When we look at the changing face of the unstable intermediate grade social studies program, we immediately recognize the importance of a realistic reading program. The scope of the social studies ranges from the historical and geographic concepts of ancient civilizations to the political, economic, cultural, and physical characteristics of contemporary issues and world hot spots. Within this continuum are found a myriad concepts and a specialized vocabulary, most of which will be encountered either for the first time or in an entirely different context from their common uses. The terms *feudal system, tribunal, earth grid, alliance,* and thousands of others represent not only specific terms but also basic concepts which are presented to youngsters in machine-gun fashion. A thorough study of these new terms as they appear in context is of itself a vital and exacting undertaking. But of course there is more. Isolated concepts are as meaningless as words out of context. These ideas must be related and this is accomplished through a process of synthesis, with interpretive reading ability as the binding cement.

In dealing with contemporary issues such as politics and the cold war our youngsters have need of the ability to determine fact from fantasy. Teachers of the upper intermediate grades are finding it entirely possible to use newspaper editorials and other popular writings which adhere to a particular point of view for the purposes of teaching critical reading and reaction.

There are other specific reading skills which can be best taught through social studies content. For instance, the proper utilization of the various types of maps, globes, and charts calls for several keenly developed abilities. These technical materials and abilities are often of far greater value in establishing the significance of man's environment than is the written text. There is no question that location, size, shape, and distance are important, although often neglected. But of equal, if not greater, importance is the knowledge of *why* the seasons change, *why* we gain or lose a day when crossing the international date line, and *why* there is no such thing as a permanent north pole at 90° north latitude. These facts are on the globe for the world to see, but they call for a specialized skill—the observation and interpretation of relationships.

For more general information the reading of biographies, historical fiction, the fascinating diary accounts of the westward movement across America, and other sources are waiting to be read. Television series such as *Bold Journey* and *Expedition* provide not only exciting factual accounts of adventure, but also free lesson plans and study guides for teachers.

It looks very much as if a teacher can no longer afford the dubious luxury of being a reading teacher for only forty-five minutes a day. And if the facilities are available, every intermediate-grade teacher should see to it that each child holds a circulation card from the nearest public library.

In summary, the various content fields represent the means for organizing bodies of related information into teaching-learning clusters, with the ultimate aims of preparing the learners in subject matter and also in the abilities to understand, to interrelate, to implement, and to further explore the knowledge of the field. Both teachers and learners must take the giant step from the *what* and the *how* to the *why* and the *what else* in each subject area.

Herein lie many implications for teaching the skills of reading. Since each individual must rely upon various forms of reading and the accompanying thought processes for gathering much of his information, he must learn to quickly comprehend new ideas, and he must develop the particular techniques which will enable him to probe beneath the surface of knowledge.

This is not to say that a child cannot learn without high reading ability, but it does say that the better his reading and thinking abilities the better his chances for understanding the *whys* and *what elses* of any body of content.

729.

## 1. Reading Study Skills: Math and Science

LEO FAY
Indiana University

236.

AS AN introduction to this topic it would be well to remind ourselves of the meaning of study. A sixth grader turning to his dictionary would discover that study was "one's own effort to learn by reading or thinking." This definition suggests that the good student develops control not only of study techniques but also of himself. He must learn to use his time wisely, start a task without delay and complete it although the task may be very demanding. In the process of developing mastery of self through study, the student also gains insight into his own strengths and weaknesses. However, while study involves these important personal aspects, the concern of this discussion is with more specific applications of the problems of reading study skills in the areas of math and science.



### Reading Study Skills in Mathematics

The job analysis technique used widely in business and industry can be applied profitably to the function of the reading study skills in these two curriculum areas. The two major tasks in mathematics for the young reader are to develop skills in computation and problem solving. Each task requires mastery of certain reading study techniques.

With regard to computation the child must learn to react to the numerals meaningfully, must recognize the symbols that indicate the process to be used, and must understand the form within which the problem is presented. The first two of these tasks are well mastered by most elementary children. The third task, unfortunately, is often the source of confusion or error. Simply changing a multiplication problem from the conventional two-by-two block model $\begin{array}{r} 23 \\ \times 46 \\ \hline \end{array}$ to a less conventional form such as 23 times 46 = ___ results in a significant increase in the percentage of error among sixth grade pupils. Obviously, a reading study skill for this phase of mathematics is to be able to react intelligently to a computational problem regardless of its form.

It is in the problem-solving phase of mathematics, however, that the reading study skills have their major applications at both a general level of study procedure and a more specific level involving vocabulary, comprehension and interpretation skills.

At the general level the student may use an adaptation of the widely-taught SQ3R procedure. The problem should be read fairly rapidly as a preview to arrive at a general understanding of the problem. Following this reading the student should ask himself the question, "What is the problem?" or "What is the problem trying to find out?" In reaction to this question the student should be encouraged to restate the problem in his own words or, if possible, attempt to visualize the problem with a simple drawing. When the student is satisfied that he understands the problem, he should carefully reread it to identify the facts and their relationships. The outcome of this second reading should include determining the process or processes to be used in solving the problem. Once this has been established, the student is ready to proceed with his computation and checking. In summary, the reading study procedure in problem solving is to survey, question, read, question, compute, question (check).

This SQRQCQ procedure may be applied to the following problem:

> Dan and Wendie bought their mother a pair of earrings for her birthday. The earrings were on sale for $1.50 off the regular price. If Dan and Wendie each paid $2.25, what was the regular price for the earrings?
> S — The problem is read rapidly to determine its nature.
> Q — What is the problem? To determine the total presale price of the earrings.
> R — Reread for details and interrelationships —$1.50 off of the regular price; two children; each paid $2.25.
> Q — What process should be used? To find the cost, add the various amounts.
> C — Carry out the computation.
> Q — Is the answer correct? Check the computation against the problem facts and the basic arithmetic facts.

To apply this general study procedure successfully a twofold foundation is needed. The first is mathematical. The student must understand the number system and know the basic arithmetic facts. The second is a vocabulary foundation that provides the basis for quantitative reasoning and the clues for the use of mathematical processes. Some of these terms are simple labels (one, seven), others indicate processes (add, divide), still others quantitative relationships (ratio, diminish, average). Still other common terms serve as clue terms in verbal problems (how much more, less than, share equally, how much change). Symbols and abbreviations also add to the complexity of the vocabulary foundation.

Building upon the mathematical and language foundations, problem solving demands the application of a range of comprehension and critical reading skills. At the general comprehension level, the child needs to obtain the literal meaning

730.

of what he reads. In addition, specific comprehension skills such as reading to gain a general impression, to follow a sequence of events, to note detail and to follow directions have application in different problem-solving situations.

As he reads, the student must also exercise judgment in various ways. He must judge the relevance of particular facts in relation to the overall problem and the reasonableness of the answer. He must generalize a process from the details presented and at times visualize a problem situation from a group of facts.

**Reading Study Skills in Science**

Developing the reading study skills in science parallels the outline in mathematics. A general study procedure makes it possible for the student to systematize his study and make efficient use of his time. Spache's variation of the SQ3R procedure is especially appropriate with science content. The steps Spache suggests are:

| | |
|---|---|
| Preview | — Rapid skimming of the total selection. |
| Question | — In terms of the study purposes raise questions to guide the careful reading to follow. |
| Read | — Read the selection keeping the questions in mind. |
| Summarize | — Organize and summarize information gained. |
| Test | — Check your summary against the selection. |

As in mathematics, the successful application of a study procedure depends upon certain foundations and upon specific comprehension and study skills. The first foundation relates to science. The student must understand the objectivity of science and the scientific method built upon that objectivity. For example, the student needs to understand the scientist's procedure of defining a problem, developing a hypothesis for the solution of the problem and subjecting the hypothesis to rigorous testing. Biographies of scientists are useful for developing this understanding.

A second foundation is vocabulary where in addition to a vast and rapidly-growing technical vocabulary the child is faced with symbolic language and abbreviations. To be sure, he has encountered abbreviations before, but in science abbreviations often stand for far more than a shortened form of a word. For example, the symbol "Fe" is more than the abbreviation for the word "iron" if the child is to understand its use in a chemical formula. The symbol includes atomic weight, valence and the relationship of iron to other elements. The very size of science technical vocabulary has raised the issue as to whether science material for children should avoid using technical terms. This is neither desirable nor possible. One of the characteristics of science writing is clarity and preciseness which makes the use of technical terms essential. Part of the task of reading science content is to build a basic technical vocabulary.

Science content reading also demands specialized applications of various comprehension, interpretation and study skills. The reading of formulas, charts, and graphs is especially important. The young researcher will need to develop skills for locating information. He needs to know which source materials to use for reliable information and which key words are used for classifying scientific information. In no other area is the careful following of directions more critical than in science. Significant facts must be determined and factual material must be organized into larger, meaningful wholes as a basis for the inductive and deductive reasoning used in arriving at understandings and applying generalizations to new situations.

The above analysis leads to an obvious conclusion. To develop superior problem solvers in mathematics and science, the elementary teacher must guide children in applying reading study skills as well as teach the multiplication tables and conduct simple science experiments.

731.

237.

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

516.

# Self Social Concepts in Relation to Reading and Arithmetic*

EDMUND H. HENDERSON
University of Delaware
and
BARBARA H. LONG
Goucher College

THIS STUDY has applied a non-verbal method to the investigation of the self-social concepts of high achieving readers selected on the basis of high and low reading achievement in relation to arithmetic. It was assumed that a pupil's conception of himself in relation to others is a variable of psychological importance and one that will have an effect upon reading behavior. A second assumption was that differentially high and low reading achievement in relation to arithmetic (among able readers) represents performance that is near to or well below functional capacity but free from prolonged experiences of failure. It is proposed that characteristic patterns of self-other relationships will differentiate the high and low readers so defined and that these relatively stable personality styles will have relevance for instructional technique.

Studies of personality variables and reading achievement are extensive but inconclusive. Reviews of the literature by Gates (1941) and by Bower and Holmes (1959) concurred in the conclusion that "there is no single personality pattern characteristic of reading failure." Holmes (1961) found certain personality variables related to success in reading in the primary grades, but these differences disappeared at the upper elementary and the secondary levels. Stewart (1950) found good and poor readers matched for intelligence, sex, and socio-economic level and different on the following personality traits: good readers were more dependent upon teacher, fearful of parents and in need of friends; poor readers were more aggressive and had relatively weak and easy-going fathers. In an exploratory study using an early form of the Childrens' Self Social Symbols Test (Henderson, Long & Ziller 1965), the present authors found a different pattern of contrasts between achieving and disabled readers who were matched for sex and intelligence. Here the good readers revealed a greater degree of individualism and of social independence. Differences in samples and in measures, particularly in the definition of reading retardation, have contributed to varied findings. The question also remains whether these differences are related to reading achievement or to the negative experiences of failure.

A different approach to this problem has been followed in a series of studies in which differential achievement in reading and arithmetic (verbal versus number proficiency) has been related to a variety of cognitive, social, and background variables. Here, too, findings show a considerable range, yet some consistencies emerge. Overprotection (Levy, 1943), strong mother influence (Plank

*This study was supported by the Office of Education. The authors are grateful to Mrs. Cora L. Holsclaw, Assistant Superintendent Elementary Education, The Pennsbury Schools, Falsington, Pennsylvania and to Mr. Joseph F. Malloy, Principal of the Quarryhill Elementary School for providing subjects for this study, for assisting with data collection, and for their encouraging interest in this study.

732.

& Plank, 1954), absence of father from home (Kackenberger, 1962 & Carlsmith, 1964) have been found to be associated with high verbal achievement. Here is strong support for the popular stereotype that associates verbal behavior with the feminine role.

Maccoby and Rau (1962) studied a carefully selected sample of fifth-grade pupils who differed in mathematics and verbal achievement. One set of findings showed the high verbal group different from its counterpart in measures of social dependency. Though self-ratings on dependency were low for the verbal group, peer ratings were high. Both boys and girls, however, said they would "often ask for help" from mother whether they needed it or not, and these mothers were themselves rated by examiners as "intrusive" and "demanding." Both boys and girls in the verbal group evidenced a "fairly high level of tension;" they were more easily distracted and more quick to say "sure" in ambiguous circumstances. Girls, however, appeared to find the verbal role less disruptive. They were low in masculine choice, more creative, and better able to delay gratification. These findings appear consistent with the idea that high verbal achievement is characteristically feminine.

In general, Maccoby and Rau found highly verbal children less stable and less mature than achievers in arithmetic. Children with high number ability were characterized as self-sufficient, popular, competent, able to reserve judgement and resist distraction. While there is considerable agreement about the feminine character of the verbal role, there is less agreement about its tendency toward instability. Roe (1965) for example, found verbal subjects socially oriented while math subjects were comparatively nonsocial. Monroe (1946) found no differences between verbal and math subjects in general adjustment but characterized the verbal group as "subjective" and the math group as "objective" on the basis of movement and form responses on the Rorschach.

## Method

The present study is part of a larger investigation in which social and cognitive variables are related to reading achievement variously defined. The nonverbal method for the measurement of self social concepts was designed for a series of studies investigating the development of self social orientations from grades 1-12. It has been applied to a variety of problems and populations (Ziller, Megas & Decencio, 1963; Henderson, Long & Ziller, 1965; Ziller, Alexander & Long, 1964; Ziller & Long, 1965; Long, Henderson & Ziller, 1965; Long & Henderson, 1966; Long, Ziller, Ramana & Reddy, 1966).

In this method, a subject, working in a test booklet, selects and arranges symbols to represent himself in relation to salient other people. The assumption is made that individuals are able to communicate various aspects of their self social system symbolically and the certain symbolic patterns have common meaning. It is assumed, for example, that physical distance in the test may represent psychological distance in the person's life space. Hierarchies of power, or dimensions of importance or value are also assumed to be reflected in specific symbolic patterns, as are degrees of self-centrality, self-complexity, and self-differentiation from peers. The validity of these assumptions is supported by a variety of findings related to the construct validity of particular items in the test.

In the present form of the test, attention is focused upon seven components of the self—usually in relation to salient other people. These include esteem, identification, dependency, individuation, power, centrality, and complexity. These aspects of the self are assumed to be part of an integrated system. They represent dimensions upon which the self as a social object may be described. They have been found to be independent of IQ. Operational definitions of these components are briefly described as follows.

In the measures of *esteem* the subject places the self and five other persons in a row of circles. Positions to the left are assumed to represent greater importance for the self. This assumption is supported by a variety of findings in which the stimulus person was found to be significantly related to position in row. Children of both the United States

and South India, for example, placed the "cruel," "unsuccessful," or "unhappy" person to the right, and the "happy" person or "good athlete" to the left ($p = .001$).

*Identification* is measured by two kinds of items. In the first of these, another person (father, mother, teacher, or friend) is placed to the extreme right or extreme left in a row of circles. The subject selects one of the other circles to represent the self. Physical distance is assumed to represent psychological distance, with greater identification associated with closer placement of the self to the other person. This assumption is supported by the finding that children who were separated from their natural fathers placed the self significantly further from father than did those living with father ($p = .02$). Likewise, children rated by their teacher as "shy" with teacher placed the self further from teacher than did those rated most "friendly" with teacher ($p = .05$).

In the second measure of identification —termed *group identification*—the subject arranges arrays of ten persons including himself into groups. The measure consists of the number of persons in the self group, and has been found to differentiate neuropsychiatric patients and normals, with the patients including fewer others in the self group.

In the measure of dependency, the subject draws a circle within or without a group of others. Greater social dependency is assumed to be represented by the placement of the self within the group of others. This assumption is supported by the finding that children placing the self within the group preferred to pursue more group activities than did those placing the self outside the group ($p = .01$).

In the measure of *individuation,* the subject chooses a circle to represent the self which is either the same or different from those representing peers. The choice of the "different" circle is assumed to express a greater degree of individuation. This assumption is supported by the finding that twins represented the self more often as the "same" than did non-twins of the same age, sex and class in school ($p = .05$). Children who had moved frequently represented the self more often as "different" than did those who had lived all their lives in a single community ($p = .05$).

In the *power* items the subject selects a circle to represent another person which is either above, even with, or below that representing the self. A higher position for the other person is assumed to represent less power for the self. This assumption is supported by the finding that children placed a friend lower than they placed teacher in a separate item ($p = .01$ in several samples).

In the *Centrality* items, the subject draws a circle within a large circle to represent the self and one to represent a friend. The placement of the self closer to the center of the circle is assumed to represent greater self-centrality. It was found that neuropsychiatric patients placed the self more often in the central position than did controls ($p = .05$), as did sociometric isolates compared with sociometric stars ($p = .005$), and children who had moved frequently compared to those who had lived in a single community ($p = .01$).

In the complexity items, arrays of three figures varying in complexity, which were derived from Glanzer and Clark (1963, 1965), are presented to the subject. He selects one of the figures to represent the self, with a higher score associated with the more complex figures. This item was used for the first time by the present authors in this study.

*Subjects and Design.* The Self-Social Symbols Tasks were administered to 81 fifth grade pupils in three high ability sections of the Quarryhill Elementary School, Yardley, Pennsylvania. These subjects were largely advantaged, white, upper-middle class children living in a young executive section of that community. Scores for intelligence (Lorge Thorndike Intelligence Tests), reading, and arithmetic (Iowa Tests of Basic Skills) were obtained from the school records. Mean scores were as follows: I.Q. = 122.0; Reading grade level = 8.0; Arithmetic grade level = 6.4. It was thought that these children represented a highly successful academic group. To select high and low readers in relation to arithmetic, reading comprehension scores were regressed on those

734.

for arithmetic concepts. This difference score was found to correlate + .90 with reading, .00 with arithmetic and + .35 with intelligence. From the total sample of 81, the top and bottom third for boys (n = 11) and for girls (n = 16), were designated high and low readers.

## Results

Reliability coefficients (split-half, corrected for length) were completed for each measure. These ranged from .65 to .94 with a median of .85 with the exception of power. The latter measures did not attain a satisfactory level and were henceforth dropped from future analyses.

Analyses of variance (sex by reading achievement) yielded significant differences between high and low readers on the following measures from the Self-Social Symbols Tasks: High readers showed:

1) greater individuation (p = .005)
2) greater complexity of self concept (p = .005)
3) greater social dependency (p=.01)
4) greater identification with friend (p = .005), with father (p = .05), and in the grouping task placed more others (p = .05), with the self and more often placed parents with the self (p = .05)

Two interaction effects emerged:

1) high reading boys and low reading girls were closer to teacher (p = .05)
2) high reading girls and low reading boys had higher self-esteem (p = about .05)

Because of the numerous significant effects and because reading and IQ were confounded in the criterion measure used to form the groups, all dependent measures were intercorrelated with those for IQ, reading, and arithmetic.

Significant positive relationships were found between reading and the following measures from the Self-Social Symbols Test: complexity, individuation, and dependency. Individuation and complexity were found positively related to each other, and dependency was found positively related both to esteem and the identification measures, mother, father, friend and number of others and parents placed with self.

Only one measure, complexity, showed a significant relationship to IQ. Here, partial correlations showed a significant relationship between reading and complexity with IQ partialed out and a nonsignificant relationship between IQ and complexity with reading partialed out.

## Discussion

A study of the intercorrelations among the self-social variables adds meaning to differences between high and low readers. The close relationship between social dependency and identification with significant other people suggests that these may be similar responses. Placing oneself in the group of others (social dependency) and placing more persons with the self, and placing the self closer to significant other persons (identification) may be considered a single self-other pattern. This finding would seem to indicate that the high readers are indeed more socially oriented, as was suggested by Roe (1956). Such a pattern would be consistent with a theory of reading which holds that the process is in part a dialogue in which the reader experiences a continual social interaction with persons both real and imaginary. From this point of view social orientation should indeed faciliate achievement in reading.

Whether or not the social orientation of the high reader is associated with fear of rejection or with a positive liking for people remains unanswered by this study. A similar pattern of high social dependence on the part of disabled readers was interpreted by the present authors as a dependent withdrawal or submersion in the group. Maccoby and Rau (1962) also interpreted the dependency of their high readers as a negative personality trait. It is equally possible, however, that one may seek the group condition for active purposes of participation and even for leadership. The positive correlation between self esteem and dependency suggests the possibility of this second interpretation for subjects in this sample. The finding of earlier developmental studies that social dependency increases over the grades also suggests that this

variable may reflect social maturity.

The second joinder revealed by the intercorrelations is that between individuation and complexity of the self concept. Here a significant relationship is found between a response which selects a symbol for self that is different from most of those representing others and a response which picks a more complex figure to represent the self. This finding appears reasonable because the more complex figures were also more unusual. Not only may the high reader of this sample be characterized as socially oriented, but also he may be seen as one who discriminates between himself and others. This does not appear to be the behavior of an individual seeking group anonymity; rather it suggests the active participant. The joint findings of sociability and individuation among achieving readers appear consistent with a theory of personality that asserts greater maturity of the self concept to individuating experiences. Also, this tendency to discriminate self from others appears harmonious with the demands of the reading task in which one must continually weigh one's values, thoughts, and anticipations against those of the author and the characters he directs.

The two interactions are of interest because they concur with the most consistent finding among studies that have investigated the differential achievement in reading and numbers. Both reflect the relatively feminine position for reading and masculine position for arithmetic. Thus it was found that for boys, high esteem was associated with low achievement in reading relative to arithmetic. For girls, high esteem was associated with high achievement in reading. While developmental studies have shown pupils moving away from teacher as they advance through the elementary grades, it is the high reading boys and the high math girls who are closest to the teacher in this sample.

## Summary

What, then, are the self-other patterns of the high achiever in reading relative to arithmetic? The findings of this study suggest that the high reader in this sample is socially oriented and sees himself as both different and complex. For boys this is a relatively low esteem role and they relate more closely to the teacher. For girls the verbal role is more compatible. Further research is needed to determine the motives of social dependency.

The present authors view these findings as consistent with a theory of reading which emphasizes the demand for vicarious social interaction as well as for the application of the cognitive and perceptual skills. The high correlation between esteem and social dependency along with the parallel attribute of greater individuation and complexity suggests that the social dependency of the able reader has, at least in part, positive rather than negative origins. Yet it appears clear that the verbal role is characteristically feminine and as such is lacking in prestige for boys.

## References


Bower, E. M. and Holmes, J. A. "Emotional Factors and Academic Achievement," *Review of Educational Research*, XXIX, 5, 529-544.

Carlsmith, Lyn. "Effect of Early Father Absence on Scholastic Aptitude," *Harvard Educational Review*, 1964, 3-21.

Gates, A. I. "The Role of Personality Maladjustment in Reading Disability," *Pedagogical Seminary*, LIX, (1941), 77-83.

Henderson, E. H., Long, Barbara H. and Ziller, R.C. "Self-Social Constructs of Achieving and Non Achieving Readers," *The Reading Teacher*, (1965), 19, 114-118.

Holmes, J. A. "Personality Characteristics of the Disabled Reader," *Journal of Developmental Reading*, (1961), 4, 111-122.

Kuckenberg, Carolyn. "The Effects of Father Absence" Unpublished manuscript (thesis prospectus), Laboratory of Human Development, Harvard.

Levy, D. M. *Maternal Overprotection*. New York: Columbia University Press, 1943.

Long, Barbara H. and Henderson, E. H. "Self-Social Concepts of Disadvantaged School Beginners." Paper presented at APA meeting, New York, 1966.

Long, Barbara H., Henderson, E. H. and Ziller, R. C. "Developmental Changes in the Self-Concept During Middle Childhood." Unpublished manuscript, University of Delaware, 1965.

Long, Barbara H. and Henderson, E. H. Self-Social Concepts of Disadvantaged School Beginners. Unpublished manuscript, Goucher College, 1966.

Long, Barbara H., Ziller, R. C. Romana, K. V. and Reddy, V. E. Self-Social Orientations of Indian and American Children." Paper


736.

presented at EPA Meeting, New York, 1966.

Maccoby, Eleanor E. and Rau, Lucy. *Differential Cognitive Abilities* Final Report, U.S. Office of Education, Cooperative Research Project No.. 1040, 1962.

Plank, Emma H. & Plank, R. "Emotional Components in Arithmetic Learning As Seen Through Autobiographies." *The Phychoanalytic Study of the Child,* IX. New York: Inter. U Press, 1954.

Roe, Ann. *The Psychology of Occupations.* New York: John Wiley, 1956.

Stewart, R. S. "Personality Maladjustment and Reading Achievement" *American Journal Orthopsychiatry,* (1950), 20, 410-417.

Ziller, R. C., Megas, J. and Decencio, D. "Self-Social Constructs of Normals and Acute Neuropsychiatric Patients," *Journal of Consulting Psychology,* 1964, 20, 50-63.

Ziller, R. C., Alexander, Marea and Long, Barbara H. "Self-Social Constructs and Social Desirability." Unpublished Manuscript, University of Delaware, 1965.

Ziller, R. C. and Long, Barbara H. Self-Social Constructs and Geographic Mobility." Paper presented at EPA meeting, Atlantic City, 1965.

Vol. 10, 1965

94.

238.

# 2. Reading Study Skills: Social Studies

HAROLD L. HERBER
Syracuse University

THERE IS widespread concern that intermediate grade students do not read social studies material as efficiently as they could. This inefficiency persists in spite of the fact that we can identify the reading and study skills related to social studies material and that we know how to teach these skills successfully.



Why is there this gap between teacher knowledge and student experience? What can be done to close the gap? This brief paper attempts to explore these two questions.

## Skills or Content

The intermediate grade teacher teaching social studies shares a common problem with his secondary school colleague. Is his responsibility to teach social studies skills or content? Nila Banton Smith[1] says, "From . . . investigations we are justified in concluding that study skills yield to improvement when they are pulled out and given special practice." But who is to "pull out" these skills? When is the special practice to be provided? The assumption is that the teacher will provide practice on the selected skills along with instruction in social studies content.

Austin and Morrison[2] found that this assumption is not soundly based. Their survey found that

> [Teachers] . . . reportedly do not have time to "teach everything" and, unaware that a dichotomy need not exist, feel it more important to cover the content than to teach the reading skills in the content areas.

So when faced with a choice, elementary teachers usually emphasize social studies content more than related study skills.

What is needed is the realization that ". . . dichotomy need not exist . . .;" that skills and content can be taught simultaneously: 1) if skills are not "pulled out" and taught in isolation; 2) if the skills being taught are those needed to read the assigned selection in the required textbook; and 3) if the skills are taught functionally *as* students read the required text, using the text as the vehicle for skills development.

## Transfer or Transformation

It is logical for a teacher to give priority to content rather than to skills, if he feels he must make a choice. He relies heavily on the basal reading program, aware that it provides his students with orderly instruction in general reading skills. He assumes that the skills ". . . taught in developmental reading lessons . . . (will) be applied independently and efficiently to the . . . (social studies) material."[3]

But the issue does not lie in the *transfer* of skills. It lies in what might be called the *transformation* of skills. Social studies material follows a different language pattern than does science, or arithmetic, or the narrative material in the language arts textbooks. A given skill—cause and effect, for example—may be needed to comprehend selections in all of these areas. However, the skill is applied differently to each type of writing. It is *transformed* in its application from subject to subject. Students' weakness in social studies skills can be traced to the problem of transformation.

Whereas one can assume a certain degree of transfer of basic reading skills from the developmental reading lessons to social studies lessons, transformation of skills can not be assumed. It should be ensured by careful guidance so students gain conscious experience in the process.

## Levels of Comprehension

As is true of most written materials, social studies texts can be read at three levels of comprehension: the factual, requiring identification of detail and simple recall; the conceptual, requiring the synthesis of details and formulation of generalizations; the associational, requiring the application of the concepts to previous experience or new situations. The level at which a given student reads his text will depend upon his level of general reading achievement and ability.

The basal reading program provides for students' levels of ability and achievement. However, such instructional provisions are rarely made for the use of social studies material. Austin and Morrison[4] found that

> In general, reading in the content subject classes was rather routine. Except in a few instances, all children in a given class read from the same page of the same book and then attempted to answer questions, most of which required only simple recall. Few adjustments made for either superior or retarded readers were witnessed.

[1]Nila Banton Smith, *Reading Instruction for Today's Children*, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963, p. 311.
[2]Mary C. Austin and Coleman Morrison, *The First R*, New York: The Macmillan Company, 1963, pp. 51-53.
[3]Austin and Morrison, *loc. cit.*
[4]Austin and Morrison, *loc. cit.*

738.

The result of failure to make instructional provisions for these levels of comprehension is that most students read for detail and factual recall. This in turn, results in students' becoming good memorizers rather than good thinkers. Students can be helped to develop competence at these levels of comprehension as they read their social studies texts. Individual differences can be served while students read their social studies text as well as while they read their basal readers.

### Guidance or Assumption

And how can this be done? How can teachers help students transform skills and apply them to social studies material at their own levels of comprehension? Through careful guidance so students consciously experience the process of transformation at their immediate level of comprehension. And this guidance must be a part of the full instructional procedure: providing motivation and purpose for reading; providing guidance in the application of the skill; providing opportunity to react to the acquired ideas. The result is that skills and social studies content are developed simultaneously.

It is difficult to guide students' application of specific skills while providing for various levels of comprehension. Often one thinks he is *guiding* when he is, in effect, *testing*. Questions assume that students already possess competence in the use of specific study skills; that the appropriate skills have been applied successfully to the selection and have resulted in comprehension and application of the ideas.

When guiding skills development, the teacher cannot assume students' prior competence with the skills. He previews the text to identify the skill needed to comprehend a given selection. The application of the skill is reviewed with students before the reading assignment is given. Then, by means of a study guide, students are led through the process of applying the specific skill to the assigned selection. The guide provides for students' varied ability and achievement levels.

### Summary

This procedure brings our knowledge of skill development to bear on the problem of teaching students how to study social studies successfully. Using basic texts as vehicles for skills development, concentrating on the functional teaching of skills, guiding students in the application of the skills, adjusting to students' levels of need, all of this ensures simultaneous development of social studies content and related study skills. This allows teachers to meet their total responsibility: not only exposing their students to a body of knowledge but also equipping them with skills to enlarge this body of knowledge independently.

739.

Combining Research results and Good Practicex
Conference Proceedings of IRA; Vol. 11, Part 2, 1966.

239.

MARGARET KEYSER HILL

SOUTHERN ILLINOIS UNIVERSITY

# 3. Reading in the Content Fields

THE TYPES OF READING or specific skills needed for learning in the content fields are often classified, categorized, or arranged differently by different authorities, but this does not mean that great controversy exists. Spache writes:

> There is widespread agreement among leading reading authorities concerning major types of reading in curricular fields and their respective purposes. A study of their recent writing points up these types of reading: (1) understanding and interpreting content; (2) grasping the organization of the content; (3) developing special vocabularies, concepts, and symbols; (4) evaluating critically what is read; (5) collecting and collating materials; (6) recalling and applying what is read; (7) broadening interests, tastes, and experiences (*14*:158).

He adds,

> Intelligence, type of previous schooling, general reading ability, and to a lesser degree, socio-economic background are some of the factors which determine readiness for a variety of reading activities. . . . Most significant is the early training in diversified reading skills in preparing pupils to read and study effectively in the content fields (*14*:159).

Artley summarized the research and literature in the area of critical reading in the content fields and states,

> . . . that a high level of critical reading as it relates to the content fields is an active process of reflecting with care on the ideas expressed, of making a rigidly exacting analysis and as a result, arriving at a valid conclusion. It is a process of judging with severity (1:122).

In answer to his question "Can critical reading be developed in and through the content areas?" he replies,

> It presumably can, if each teacher takes into consideration the factors that predispose the reader to do a high level of critical reading, if she



740.

understands the skills, abilities, and understandings that are involved, and if she sets about through a systematic and sequential program to develop them (1:123).

Maney's study concerning literal and critical reading in science is an investigation of the relationships between selected factors in reading comprehension. She tested 513 fifth grade children. Her conclusions were:

1] Critical reading comprehension in science is a complex of skills or abilities, each of which is relatively independent of the ability to read literally.
2] Proficiency in critical reading of science materials cannot be predicted from scores obtained (a) on literal reading in science, (b) on group tests of verbal intelligence, or (c) "general" reading tests.
3] Proficiency in literal reading interpretation of science materials may be predicted with a fair degree of accuracy from scores on group tests of verbal intelligence and "general" reading tests.
4] Group tests of verbal intelligence and "general" reading tests tend to measure many common abilities (*9*:62).

Sochor reported a study which also involved 513 fifth grade subjects. This investigation concerned literal and critical reading in the social studies. The general conclusions were:

1] Reading comprehension in social studies appears to be a composite of many skills and abilities which apparently function at various levels of mental activity.
2] Literal and critical reading comprehension in social studies appear to be relatively independent abilities when intelligence is held constant.
3] Individual critical reading comprehension skills appear to be relatively independent of the ability to comprehend literally in social studies.
4] When intelligence is held constant, critical reading comprehension appears to be virtually independent of "general" reading ability; literal reading comprehension, relatively independent of "general" reading ability.
5] Group tests of "general" reading ability and group tests of verbal intelligence tend to measure common factors (*15*:53-54).

Humphrey and Moore appraised,

. . . the potential contribution of physical education to the intellectual growth and development of children; specifically to observe the reactions of primary-age-level children when independent reading material involves an aspect of the curriculum area of physical education (*6*:561).

741.

The procedures involved allowing 503 children to read from one to three stories for a total of 1,007 different readings. In these stories written about ten active games, special care was given to the reading values and to the literary merits of each story. Attention was focused on particular reading skills and concept development. The conclusion was

". . . that these active game stories gave the children opportunities to practice and maintain skills necessary for intelligent reading" (*6*:561).

Several studies are reported which involve reading and arithmetic. In early study Lessinger investigated the effect of reading on arithmetic achievement in grades three through eight. The conclusions included the following:

Arithmetical computation, although seemingly further divorced from reading than from the solution of verbal problems, does involve certain specific skills in the field of reading (*8*:287).

The errors due to faulty reading virtually disappeared as a result of training in reading without any specific reference to arithmetic. The actual skills emphasized during the period of this study included the ability to focus attention upon key words and on technical signs, the ability to focus combinations in the one eye-pause, to read unimportant parts hurriedly, etc. (*8*:289).

Reading was a factor studied by Hansen to determine whether certain abilities are associated with superior achievement in solving verbal arithmetic problems. General vocabulary at the 5 per cent level, and general language ability, speed reading to predict outcomes, and reading graphs, charts, and tables were found to be significant at the 1 per cent level. Comprehension—reading to predict outcomes, speed reading to note details and comprehension—and reading to note details were not significant (*5*:111-118).

The purpose of Balow's study was

to determine if the level of general reading ability is significantly associated with problem solving ability, if the level of computation skill is significantly associated with problem solving ability, and if a high level of ability in one of the areas will compensate for a low level of ability in the other (*2*:18).

The subjects were 1,400 sixth grade students who were given reading, arithmetic, and IQ tests, and then classified according to reading level and computation level. The conclusions included:

1] General reading ability does not have an effect on problem solving ability. The findings of this study may differ from previous studies

because the total range of reading ability was used rather than two groups defined as good and poor readers. Also, the effect of intelligence was controlled (2:21).

2] The lack of a significant interaction suggests that for a given level of computation ability, problem solving increases as reading ability increases, and that for a given level of reading ability, problem solving increases as computation ability increases (2:22).

3] The findings of this study point out the importance of considering children's reading ability as well as computation ability when teaching problem solving skills (2:22).

Fay investigated the relationship between specific reading skills and selected areas of achievement. The subjects were 384 sixth grade pupils. One test of mental ability (Binet), three tests of reading ability, and one test of achievement in arithmetic, social studies and science achievement were used. The following reading skills were selected for study: 1] reading to predict the outcome of events; 2] reading to understand precise directions; 3] general reading comprehension; 4] reading of maps, graphs, charts, and tables; and 5] use of index, reference, and dictionary. The findings were summarized as follows:

1] Superior readers were found to achieve no better in arithmetic than did inferior readers when chronological and mental ages were controlled. This was true for all reading skills tested.

2] When the effects of chronological and mental ages were controlled, superior readers in predicting the outcomes of given events, understanding precise directions, general comprehension, and the reading of maps, graphs, charts, and tables were found to achieve better in social studies, at the 1 per cent level of significance than did readers who were inferior in these abilities.

3] When the effects of chronological and mental ages were controlled, superior readers in using references, an index, and a dictionary were found to achieve no better in social studies than did readers inferior in these abilities.

4] When the effects of chronological and mental ages were controlled, superior readers in understanding precise directions and in general comprehension were found to achieve better in science, at the 5 per cent level of significance, than did readers who were inferior in these abilities.

5] When the effects of chronological and mental ages were controlled, superior readers in predicting the outcome of given events, the reading of maps, graphs and charts, tables, and in the use of references, an index, and a dictionary were found to achieve no better in science than did readers who were inferior in these abilities (4:544-545).

743.

6] The reading skills studied in this investigation are obviously more related to the reading demands of social studies than to those of science and arithmetic. It may be hypothesized that reading skills more directly related to the demands of science and arithmetic would prove significant to achievement to those areas (*4*:546).

Maw and Maw investigated children's curiosity as an aspect of comprehension. The subjects were sixth grade pupils who were ranked as to "degree" of their curiosity by teacher, peers, and self.

According to the definition of curiosity used in this study, a person high in curiosity scans his environment more thoroughly than does a person of low curiosity, and as a result notices more. The high curiosity person also wants to understand and to know more about what he sees. It therefore seems probable that in reading the high curiosity person will be more alert and will be more actively seeking understanding (*10*:236).

The findings of the study support the hypothesis that children with high curiosity tend to sense the meaning of sentences more accurately than do low curiosity children of equal tested intelligence. The present investigation indicates that the advantage held by high curiosity children is less at the upper I.Q. levels (*10*:239).

McCullough investigated the responses of elementary school children to common types of reading comprehension questions.

For the purpose of this study a number of first, second, and fourth grade children in a city in Ohio were given, respectively, the Pre-Reading Tests, the Second Grade Readiness Tests, and the Fourth Grade Readiness Tests of the Ginn Basic Reading Tests. The children's responses on the comprehension sections of these tests were analyzed (*11*:65).

McCullough concludes,

These data indicate that children at all levels examined in this particular city (first grade, second grade, and fourth grade—285 in all) are able to think about story material in the four ways examined: main idea, details, sequence, and creative reading (seeing relationships, drawing conclusions, passing judgments, and the like). Further, they show that a positive and perhaps substantial relationship among these comprehension types, suggesting the possibility of a common factor pervading all. They do not, however, justify the idea of testing children by one type in order to discover their ability in all types, for individual predictions are impossible on the basis of a score on any one type of comprehension. A teacher would have no assurance from a child's success on a test of fact-getting, that he was good at getting main ideas, or sequence, or drawing conclusions in material

744.

of similar difficulty. Nor would the teacher know what to emphasize in his subsequent teaching to equalize the child's strength in these different skills (*11*:69).

Schneyer investigated the use of the cloze procedure for improving reading comprehension.

> The term "cloze" is derived from the Gestalt concept of "closure," the tendency to complete a structured whole by filling in a gap. A cloze test or practice exercise is constructed, by deleting certain words in some regular manner from a verbal passage and substituting underlined blank spaces. The individual responding to the cloze test or exercise is asked to fill in the word which belongs in each blank space. The comprehension score on the cloze test or exercises consists of the number of correctly filled spaces (*12*:174).
>
> The major hypothesis of this investigation was concerned with whether pupils who completed a series of cloze exercises would achieve significantly greater improvement in reading comprehension, as measured by standardized tests, than pupils who had not completed such exercises.
>
> The differences between initial and final mean scores indicate that both groups increased in vocabulary and reading comprehension and decreased in speed. . . . The difference between the means of the two groups was not significant, and therefore the pupils who had completed the cloze exercises did not show significantly greater improvement in reading comprehension (*12*:176).
>
> The relationship between adequate achievement in word recognition ability and significant performance on the cloze exercises suggests that pupils with word recognition deficiencies are likely to find cloze exercises too difficult, just as pupils are likely to have trouble with conventional reading materials (*12*:179).

In addition to research studies, analysis of children's texts in the content fields and summarizing and categorizing various skills are quite common in the literature which gives attention to comprehension in general reading and in reading in the content fields.

In separate articles and in articles dealing with research, suggestions for teaching are often given along with suggestions for further research. As an example, McCullough writes,

> These data should lead to further research. It would appear that teachers can actually inhibit thought processes by their approach to reading (*11*:69).

Johnson summarized and analyzed the factors in reading comprehension. In the section, "Implications for Teachers," she states,

Probably the outstanding lesson the teacher should learn from this discussion is that reading comprehension is not a unitary ability. There is no magic method by which a function called comprehension can be improved in its entirety. Since there are many factors involved in reading comprehension, improvement would depend upon development of its components (7:400).

She adds,

A final point to be stressed is this: each teacher should be a teacher of reading. In every subject-matter field there are certain concepts to be developed which are peculiar to that field (7:402).

Serra has reviewed and reported the literature concerned with developing concepts and their verbal representations. She states,

The attempts to define the word "concept" have been many, but as yet there has been little agreement on an adequate definition. For empirical purposes, however, Dewey's definition is commonly accepted: "concept" is defined as "meaning sufficiently individualized to be directly grasped and readily used, and thus fixed by a word."

Concepts exist at all levels of complexity. A concept can be based on one experience with an object or upon a multitude of experiences, and it will increase in complexity with the amount of experience. It can be based on varying degrees of relationships among objects. Concepts of increasing levels of complexity are based on a hierarchy of concepts dealing with objects and their relationships. Concepts are also symbolized and verbalized by the individual, and the symbols or words in themselves become new concepts with a new hierarchy.

Verbalization, however, is not essential to indicate the existence of a concept. Behavior may demonstrate the acquisition of a concept (*13*:275).

Reading with meaning requires dealing with concepts that have been verbalized. The reader and the writer must have the same concept if the meaning is to be understood. This problem in reading is associated with development of meaningful concepts before reading, the development of meaning vocabulary, and awareness of the multiple meanings of words. Then the reader's task is often one of selecting the appropriate meaning or concept for that symbol or word. One means of developing concepts is through the development of vocabularies. In the subject matter or content fields it is essential that specialized vocabulary of that field be taught, and that appropriate concepts be developed.

Serra suggests:

746.

A review of research indicates that concepts are better developed when these conditions are present.

1] Provision is made for a wide range of experiences, vicarious as well as direct.
2] Careful instruction in word study should be provided to extend vocabularies and knowledge of word meanings. In this instruction, high level concepts should be related to those at lower levels and careful differentiation must be made between mere verbalism and established concepts.
3] The multiple meanings of words provide a means of developing concepts based on vicarious experiences received through language. It must be recognized, however, that high frequency words are not readily understood, although many of the most frequently used words are multi-meaning in value (*13*:283-284).

Durrell and Palos describe an organizational pattern using pupil teams or small groups in reading. They state,

> Team study seems to offer many advantages to learning, especially in view of the wide differences in ability among pupils in any classroom. It permits adjustments to team differences in level and learning rates; rapid learners may advance faster or use more difficult material; slow learners may use easier material or more detailed study guides and progress at a suitable pace. It should give the opportunity for specific practice to overcome weaknesses common to the team (*3*:552).

They add:

> Graded study guides for pupils studying the same lesson help to improve comprehension and recall (*3*:554).
>
> Groups of five pupils seem to work well when elaborate thinking or planning is required. After reading a geography selection on Italy, the group may be asked to list additional information they have: people who have come to this country from Italy who are prominent in baseball, movies, television, politics, or local people who have Italian backgrounds; things we use which could be included in an exhibit or an assembly program; questions which might be asked or information which might be included in a letter written to children in Italy. Every pupil seems to participate when groups are limited to five, but individual participation is diminished when groups become as large as seven. Pairs and groups of threes run out of ideas more rapidly and are less secure than groups of five. In elaborative thinking assignment pupils may be grouped without regard to reading achievement (*3*:555).

741.

This description suggests that organizational patterns for learning-teaching as well as providing various and/or specific purposes and techniques for use in the classroom can result in more pupil interest and achievement.

The classroom teacher should find many implications for improved instruction through reflecting upon the research in the field. Suggested areas for thought would include:

1] How does the regular reading instructional program contribute to learning highly specific skills in reading?
2] How may the plans for instructional periods in reading be closely identified with the needs of pupils in reading in the content fields?
3] Where is the best place to find useful and meaningful practice in reading skills?
4] Are certain skills more easily practiced in particular content fields?
5] How are the backgrounds of information, concepts, and vocabulary study related?
6] How can the classroom teacher keep adequate records concerning specific skills taught and practiced?
7] How can the classroom teacher identify specific reading needs of pupils when they read materials in the content fields?

## REFERENCES

1. Artley, A. Sterl. "Critical Reading in the Content Areas," *Elementary English,* 36 (Feberuary, 1959), pp. 122-30.
2. Balow, Irving H. "Reading and Computation Ability as Determinants of Problem Solving," *Arithmetic Teacher,* 11 (January, 1964), pp. 18-22.
3. Durrell, Donald D., and Viola A. Palos. "Pupil Study Teams in Reading," *Education,* 76 (May, 1956), pp. 552-556.
4. Fay, Leo C. "The Relationship Between Speaking Reading Skills and Selected Areas of Sixth Grade Achievement," *Journal of Educational Research,* 43 (March, 1950), pp. 541-547.
5. Hansen, Carl E. "Factors Associated with Successful Achievement in Problem Solving in Sixth Grade Arithmetic," *Journal of Educational Research,* 38 (October, 1944), pp. 111-118.
6. Humphrey, James H., and Virginia D. Moore. "Improving Reading Through Physical Education," *Education,* 80 (May, 1960), pp. 559-563.
7. Johnson, Marjorie Seddon. "Factors in Reading Comprehension," *Educational Administration and Supervision,* 35 (November, 1949), pp. 385-405.

748.

8. Lessenger, W. E. "Reading Difficulties in Arithmetical Computations," *Journal of Educational Research,* 11 (April, 1925), pp. 287-291.
9. Maney, Ethel S. "Literal and Critical Reading in Science," *Journal of Experimental Education,* 27 (September, 1958), pp. 57-64.
10. Maw, Wallace H., and Ethel W. Maw. "Children's Curiosity as an Aspect of Reading Comprehension," *The Reading Teacher,* 15 (January, 1962), pp. 236-240.
11. McCullough, Constance M. "Responses of Elementary School Children to Common Types of Reading Comprehension Questions," *Journal of Educational Research,* 51 (September, 1957), pp. 65-70.
12. Schneyer, J. Wesley. "Use of Cloze Procedure for Improving Reading Comprehension," *The Reading Teacher,* 19 (December, 1965), pp. 174-179.
13. Serra, Mary C. "How to Develop Concepts and Their Verbal Representations," *Elementary School Journal,* 53 (January, 1953), pp. 275-284.
14. Spache, George D. "Reading in Various Curriculum Fields," *The Reading Teacher,* 11 (February, 1958), pp. 158-164.
15. Sochor, Elona E. "Literal and Critical Reading in Social Studies," *Journal of Experimental Education,* 27 (September, 1958), pp. 49-56.

749

240.

Vol. 10, 1965

# SEQUENCE III
# LITERATURE IN THE READING PROGRAM

## A. PRIMARY LEVEL

### 1. Components of a Beginning Literature Program

CHARLOTTE S. HUCK
Ohio State University

*There was a child went forth every day,*
*And the first object he looked upon,*
*that object he became,*
*And that object became a part of him for*
*the day or a certain part of the day,*
*Or for many years or stretching cycles of*
*years.*

from LEAVES OF GRASS
Walt Whitman

#### The Need for Literature in the Primary Grades

Are we as teachers and parents concerned that fine literature becomes a part of the *young* child's early experience? Certainly the primary child is as receptive to the sound of new and fascinating words, to the beauty of expression, and to the creation and extension of his own experiences as is the high school student. Yet most primary teachers would disclaim any responsibility for the teaching of literature. Literature, they would tell you, is studied in the high school, not the elementary school.

Recent research concerning the tremendous importance of the early years of a young child's general learning pattern should make us question the postponement of the teaching of literature until high school. Bloom's book, *The Stability and Change in Human Characteristics,* maintains that children have obtained at least 75 per cent of their total general achievement by the time they have reached age 13 (grade 7) and he particularly emphasizes that "the first period of elementary school (grades 1-3) is probably the most crucial period available to the public schools for the development of general learning patterns."[1] An appreciation for fine literature then should not be tacked on to a child's education after he has absorbed some three-fourths of his general learning pattern, but should permeate his life from the time he can first respond to the alliteration and rhyme of *Mother Goose* to the time when he has developed permanent lifetime reading interests.

We should encourage parents to read to their children beginning at ages two and three. Many children entering first grade or kindergarten do not know Mother Goose rhymes or the old folk tales with their magic repetition of three. In one first grade none of the children were familiar with Clement Moore's poem, " 'Twas the Night Before Christmas." Schools might devote one P. T. A. meeting to recommending books for family reading. Perhaps parents need to be told that in Dolores Durkin's[2] study of the characteristics of children who learned to read before they started school, one of the few common experiences they had all shared was that their parents had consistently read to them at an early age.

#### The Values of Literature for Primary Children

Kindergarten and primary teachers will want to continue this exposure to fine literature in the early grades. They will maintain the daily story hour as a means of increasing children's vocabularies, extending children's experiences, and introducing them to their literary heritage.

It is true that children's first reading materials are necessarily limited, either by a controlled vocabulary, controlled sounds of the words, or the sentence patterns. But there need be no limitations put upon

[1]Benjamin Bloom, *The Stability and Change in Human Characteristics.* New York: John Wiley and Sons, 1964, p. 110.
[2]Dolores Durkin, "Children Who Read Before Grade One," *The Reading Teacher,* 14 (January, 1961), pp. 163-66.



750.

the vocabularies of the books we read to boys and girls since their understanding vocabularies are far larger than we have previously thought. Five- and six-year-olds are preoccupied with the sounds of language. Notice their recent delight with the word "supercalifragilisticexpialidocious" in *Mary Poppins*. Seven-year-olds show an appreciation for the various meanings of words as they giggle at poor *Amelia Bedelia's* literal interpretations of her instructions "to dress the chicken" and "to draw the curtains." All primary children love Kipling's cadenced chronicle of the *Elephant's Child's* trip to the banks of the grey green greasy Limpopo River all set about with fever trees to find out what the crocodile has for dinner. Continued exposure to the best in children's literature should increase and refine children's sensitivity to language.

Literature may also extend children's experiences through time, space and the imagination. As children read or hear such books as *The Courage of Sarah Noble* or *Carolina's Courage,* they vicariously participate in the fears and sacrifices of our pioneer forefathers. Books like *Madeline, Little Leo,* and *A Pair of Red Clogs* help children escape the provincialism of their own communities and build an appreciation for the universal qualities of childhood. Books can help children stretch their imaginations and develop their capacity to wonder. Maurice Sendak's book *Where the Wild Things Are* is the story of the fantastic daydreams of a boy named Max who has been punished and sent to his room without his supper. "That very night in Max's room a forest grew," and Max sets off on a journey to the island where the wild things are. Finally Max returns to reality and finds his supper waiting for him—"and it was still hot." The ability to dream dreams is necessary for all creative endeavors. Good books may provide the wings that help children's imaginations to soar.

The foundations of our literary heritage are laid in the books we read in our childhood. Our language is filled with literary allusions, many of which have their origin in the literature for children. Think of the number of expressions which have come from this source: mad as a hatter, my man Friday, a camel in the tent, sour grapes, dog in the manger, Pandora's box, and Serendipity. Many adults use these expressions without knowing their source. How much richer their connotations would be if they were familiar with the origin of the expression.

### What Books Shall We Present to Young Children?

The recent flood of children's books almost seems to inundate those whose business it is to evaluate them. Last year there were some 3000 juvenile titles published. Today we can buy children's books at the airport, at the drug store and at the supermarket. But the most readily available books are not the best books. How may we assist parents and teachers to select quality books to share with children, books that will prove to be a rich literary experience?

There is nothing wrong with a child's reading some of the many mediocre books which are available to him, except that it robs him of the time he might have spent reading a really good book. The young child who is deprived of reading a particularly fine book at the appropriate time in his life probably has missed it forever. For we seldom go back to read the books we missed as children.

### A Planned Literature Program for the Primary Grades

Primary teachers will want to do more than just read excellent prose and poetry to their children each day, for mere exposure to good literature does not necessarily produce understanding and appreciation. The class should take time to discover what constitutes good writing. After reading *Swimmy* by Leo Lionni, one first grade class asked their teacher to reread it while they savored their favorite descriptions of "strange fish pulled by an invisible thread" and an "eel whose tail was almost too far away to remember." Another group of third graders established criteria for evaluating their favorite stories. They talked about ways the author made *Pippi Longstocking* seem to come alive.

Different forms of literature may be discussed with primary children. They can understand the structure and purpose of fables. They need help in identifying the difference between historical fiction and

751.

biography. Gradually, they will see that each kind of literature has its own characteristics and they will be able to evaluate a story on the basis of its type as well as its content.

Literature as literature does need attention in our primary grades. Basic concepts and the content of a literature program should be planned as carefully as one sequentially plans programs of reading and arithmetic skills. For we want to be certain that literature is a part of each child as he goes "forth every day, . . . for many years or stretching cycles of years."

241.

### b. Using Children's Books to Extend the Social Studies

186.

HELEN HUUS

Think back for a minute, those of you who are over twenty-five at least, to when you were in the elementary school. You probably sat in a screwed-down seat, in a room with "schoolboard" tan walls, varnished woodwork, a hardwood floor, and a ten-inch bulletin board above the blackboard. Among your texts you had a nice big geography book to hide your surreptitious reading material, and a history book that probably had 3" x 4", poorly reproduced, black-and-white photographs. On the walls were Gilbert Stuart's "Washington," a Maxfield Parrish, and "A Reading from Homer," or something similar. There may have been a few library books, including classics like *Tom Sawyer* and *Little Women,* a few books like Francis Parkman's *The Oregon Trail,* and perhaps the *National Geographic Magazine.*

Now contrast this with a modern school, not just the light, airy classrooms, the lovely colors, the visual aids, but the books—yes, the many interesting books. Books to help you teach, among other subjects, the social studies. Books to entice the children to read.

The problem is where to begin and how to organize these books to show how they can contribute to the children's learning. I have solved it for now by choosing five ways in which books help: (1) to substantiate the information presented in the textbooks, (2) to give additional detail and depth, (3) to provide practice in reading skills, (4) to create new interests, and (5) to promote effective use of leisure time. Now let us look at each of these, but keep in mind that the examples have been chosen more or less at random, that they include old favorites as well as new books, and that these are but a few of the total number available.



#### 1. Substantiating Information

Among the books that substantiate information found in the social studies texts are the series books, for these usually contain well-organized, factual discussions, illustrations with fairly recent photographs or colorful drawings of a country or region.

One of the easier series is the "Getting to Know" books (Coward) that include such countries as Liberia, Lebanon, Turkey, Korea, Thailand, the U.S.S.R., and the Two Chinas. The jacket of *Getting to Know the Two Chinas* says this:

> His (the author's) account of the "two Chinas" results from firsthand investigation in the Chinese Republic, interviews with American and other foreign officials there, in Hong Kong and Macao, as well as with escapees from the Chinese People's Republic. He was able to obtain and analyze key documents from Peiping.

When you know that the author is Dr. Charles R. Joy, a Phi Beta Kappa, *cum laude* Harvard graduate, who has been decorated five times by foreign governments for his work with children, you can understand better the calibre of some of the books written for children today.

"Around the World Today" books (Watts) are photographic stories of real children in foreign countries, and the "Christmas Round the World" series (Follett) portray Christmas customs as well as other aspects of everyday life through a simple story.

Among the more difficult ones is "The First Book" series (Watts) that include more than one hundred titles, though not all on foreign lands. These attractive books usually give a good overview of the country. Typical titles are on Hawaii, Alaska, England, Italy, India, and the Antarctic.

"My Village in" books (Pantheon) by Sonia and Tim Gidal contain a series of excellent photographs, usually depicting the activities of a ten-year-old boy, with a slight story woven around the pictures. Countries represented in this series are Austria, India, Ireland, Israel, Greece, Norway, and Yugoslavia.

The "Let's Visit" series (Day) are especially interesting because they include some of the less well-known areas of the world—Southeast Asia, Formosa, Japan, India, Pakistan, The Middle East, Middle Africa, and West Africa. The author, John Caldwell, first visited some of these countries during World War II, and has made several return journeys since then.

The "Landmark" books (Random) hardly need an introduction, for their popularity has been firmly established. While not all their titles are equally difficult nor well done, the easy-looking format is a real incentive to reluctant readers.

The "Life in Other Lands" books (Fideler) look much like geography textbooks, but their outstanding quality lies in the many large, detailed, black-and-white photographs. I found the ones on Africa and the Soviet Union particularly interesting.

The "Picture Story" series (McKay) present a rather concise treatment of life in rural areas and in the city, but usually answer the questions that children have about a country. The colored illustrations, though not outstanding, give a realistic picture.

Among more difficult series books are three that use the words "lands and people" somewhere in the titles. The "Lands and Peoples" volumes (Holiday) include cultural, economic, and political aspects of the country, as well as some of the history and geography. Representative titles are Egypt, the Arab Lands, Australia, the Dutch East Indies and the Phillippines, and Oceania. The "Lands and Peoples" series (Macmillan and Adam and Charles Black, London) is unusual in that many, if not all, are by British authors. Titles include Canada, the U. S. A., New Zealand, South Africa, and the West Indies. The "Portraits of the Nations" series (Lippincott), whose titles are *The Land and People of* ..... or *The Land of the* ..... *People* include geography, history, and daily life and there are maps and a section of photographs in each book.

"Meet the World" books (Harper) include those about Africa by John Gun-

753.

ther in cooperation with Samuel and Beryl Epstein. *Meet North Africa, Meet South Africa,* and *Meet the Congo* are three of these. And last, the "Picture Map Geography" series (Lippincott) present pictorial maps of various areas accompanied by a short text that emphasizes the physical features and products, but may include a bit of history, too.

Although this list is not exhaustive, it does include most of the series currently available for elementary and junior high school use. There are other books, such as encyclopedias and atlases, that also substantiate textbook information, but these will not be considered here.

**2. Adding Detail and Depth**

Perhaps the greatest contribution of children's literature to social studies is in the addition of detail and depth to the framework given through texts and factual books. Certainly the accounts in library books have more space to describe details of daily life today or yesterday, and through these details, the places and periods come alive. As the present and the past become identified with real people, children today learn to understand and appreciate many ways of living.

To illustrate how books can add detail through narration and description, I have chosen some books on prehistoric and ancient times, partly because this is a topic on which only recently have children's books been written, and partly because this is an area needing additional information to make the ideas creditable and meaningful to children.

*Prehistoric America* by Anne Terry White is a Landmark book that has pieced together life in America millions of years ago from fossil discoveries in different parts of the country—the pitch pits on Rancho LaBrea near Los Angeles, "Minnesota Man," the homes of the basket makers, and the excavations of the mound builders. The same author has also written a World Landmark entitled *The First Men in the World* that includes Neanderthal, Java, Cro-Magnon, and Folsom Man, and early American Indians.

*The Cave Hunters* by William Scheele, who is the director of the Cleveland Museum of Natural History, tells of the cave men of France and Spain. A more complete account of the art of cave men is found in an excellent book entitled *The Caves of the Great Hunters* by Hans Baumann, originally written in German. On September 12, 1940, two French schoolboys discovered the cave at Lascaux, when their dog disappeared down a hole. They summoned their teacher, who realized the importance of the discovery and obtained professional aid at once. Because of this, the beautiful cave drawings are preserved today. The illustrations in this book add to the vivid account.

One last example to show how detail can add to social studies understanding is found in the books of Genevieve Foster. *Augustus Caesar's World,* A Story of Ideas and Events from 44 B.C. to 12 A.D., covers the period from the death of Julius Caesar through the death of his nephew who ruled as Augustus Caesar. Each section is introduced by a pictorial double-page spread that shows the contemporary figures of the time—Cicero, Virgil, Cleopatra, Antony, two King Herods, Hillel, the geographer Strabo, Confucius, Buddha, and Jesus of Nazareth. This cross-sectional approach to history presents for many a new perspective, and there are enough details to keep any group busy for quite a time tracking them down.

A second way in which detail and depth can be added to text material is through the beautifully illustrated picture books. Not only is information obtained, but the aesthetic appreciation, the glow of pleasure that results from seeing lovely drawings creates a "tone" and a feeling that words alone cannot convey.

Marcia Brown's *Felice,* for example, shows Venice in all its glory through striking pictures in bright royal blue, gold, and rose. Portrayed are parts of St. Mark's square, the Rialto Bridge, and a double-page of gondolas at night on the Grand Canal. Although meant for young children, older ones and adults alike gain pleasure from this book.

The picture books of cities by M. Sasek, *This is Paris, This is London,—Rome,—New York,* capture not only the familiar scenes—the markets, the cathedrals and other important buildings—but people like the *concierge,* and policemen—the *bobbies* of London, the *gendarmes* of Paris, and the *carabinieri* of Rome. The

754.

over-all design and the use of color make these volumes outstanding.

*Nine Days to Christmas* won the Caldecott Award for its distinguished illustrations by Marie Hall Ets. It is the story of the Mexican *posada,* a Christmas party. Another colorful picture book of Mexico is *Ramón Makes a Trade,* by Barbara Ritchie and illustrated by Earl Thollander. Ramón starts out with his own clay bowl, made on his father's wheel, and through hard work by pushing the merry-go-round and through shrewd bargaining, he eventually trades his bowl and his *centavos* till he finally gets the parakeet in the cage that is his greatest wish.

*Williamsburg in Color* is a book of colored photographs by Thomas L. Williams that faithfully reproduces the Williamsburg of today. The homes, both interior and exterior, the gardens, shops, and government houses are portrayed through the four seasons.

Other books with unusual and artistic illustrations could be mentioned, but these few must suffice.

A third way that detail and depth are obtained is through books of adventure that contain intangible elements of the spirit of a people. Almost any country could be used for illustration, but some books whose scenes are laid in Asia will be used.

First is one of my favorites, *Big Tiger and Christian* by Fritz Muhlenweg and translated from the German. It describes (in nearly 600 pages) the adventures of Christian, a twelve-year-old American boy born in Peking, and his Chinese friend Big Tiger. They start out innocently enough to fly their kites from an empty box car, only to find that it is attached to a troop train that takes them into the midst of the Chinese civil wars. They journey through Mongolia to Urumchi in Sinkiang. They meet robbers, bandits, and a llama, and carry a secret message for General Wu. After many adventures, they arrive safely back in Peking. The book makes wonderful reading aloud, but a good map of China is a necessary supplement to get the most from the travels of this engaging pair with such polite manners.

Second is the simple *Burma Boy* by Willis Lindquist. It tells of the love of Haji for the elephant Majda Koom, who later became an outlaw and led a herd that terrorized the villages. Haji finally succeeds in capturing the elephant and becoming his boy.

The third book is *Daughter of the Mountains* by Louise Rankin. The heroine is Momo, a little Tibetan girl who follows her stolen Ihasa terrier, Pempa, all the way to Calcutta. Along the way many people help her—a young woman who gives her tea, a boy at the fair, a little servant girl, a British gentleman, and a Tibetan monk. At each stop, the scenery and life of the people are vividly described. The reunion of Momo with her precious dog is joyous indeed and children will thrill to the happy ending.

Another aspect of national character is found through interpreting their art. In Pearl Buck's *The Big Wave,* the illustrations are reproductions of prints by the famous Japanese artists Hiroshige and Hokusai. The tale of the tidal wave that destroys the city on the beach is beautifully told, and the delicate prints convey the long cultural tradition of the people.

This list would not be complete without an example of folklore, for through the traditional stories as well as through art, the customs and values of a people emerge. A collection of tales like *The Dancing Kettle* and Other Japanese Folk Tales by Yoshiko Uchida include stories that have been handed down orally from generation to generation and finally captured in print. Each part of the world has its own, and children can learn about the cultural inheritance of a people through an acquaintance with their tales.

This enumeration could go on and on, for there is a wealth of stories that enhance concepts, that build visual images, and that create in children an empathy with other peoples.

### 3. Using Reading Skills

The third way that library books extend the social studies is to give children a chance to practice skills learned in the regular reading period, and thus reinforce the basic teaching through application. Among these skills are locating sources and pertinent parts within a source, eval-

755.

uating material, and synthesizing information from several sources.

Learning that a certain series contains specific types of information aids a child who needs to report on Pakistan or Peru. Knowing how to use an index, and then using it, help locate the exact page in the reference. Fortunately, many of the series books like "Portraits of the Nations" or the "First Books" have indexes that simplify their use.

Evaluation is a harder problem, but by comparing information from various sources—textbooks, factual books, encyclopedias, atlases, and several stories of an area—then checking one against the other, children soon come to know which authors, series, and publishers turn out to be right most frequently. The quality of interest may not be difficult for a child to judge, but the reason why may not always be clear, except that the book is "exciting" and the illustrations "pretty." Leading children to a more precise discrimination and elevating their tastes is another problem in itself.

Synthesizing material from several sources is a necessary adjunct to the use of multiple resources, if duplication in reporting is to be avoided. Skills like making a master outline, then filling in parts, adding or subtracting topics as needed, recognizing important ideas and pertinent details are all learned in a natural setting when pupils are faced with the practical problem of making a report or sharing their knowledge in other ways.

#### 4. Creating New Interests

The fourth main contribution which children's books make to the social studies is in creating new interests. The starting point can be most anywhere; so for today we shall begin where we are—St. Louis, Missouri. If the jumping-off place be history, a study of the Louisiana Purchase could lead to a biography of *Thomas Jefferson,* by Clara Ingram Judson perhaps, and from there to *The Lewis and Clark Expedition* by the late Richard Neuberger, or *Of Courage Undaunted* or *Marcus and Narcissa Whitman* both by James Daugherty, or to the story of Sacajawea, the Indian girl guide, as told in *Winged Moccasins* by Frances Farnsworth. These could be followed by other stories of the Oregon Trail, but remember there are other trails that started here, too.

Holling Clancy Holling's *Tree in the Trail* tells of an old cottonwood tree on the Santa Fe Trail, and *The First Overland Mail* tells of the "Butterfield Line" that blazed a stagecoach path over the southern route. *The Pony Express,* by Samuel Hopkins Adams, narrates the history of the intrepid riders who carried the mail the 1,966 miles from St. Joseph to Sacramento in just ten days, and though the "Pony" lasted but nineteen months, it wrote an indelible chapter to the opening of the West. Follow this up with *The Building of the First Transcontinental Railroad,* then turn to the Indians of the Plains by reading *Buffalo Kill,* by Gardell Christiansen, that describes an annual buffalo hunt. This leads directly to a biography of *Buffalo Bill* by Ingri and Edgar Parin D'Aulaire, which might point to other colorful heroes such as Daniel Boone, Wild Bill Hickok, or Wyatt Earp, to explorers like DeSoto, Marquette and Joliet, and LaSalle, to later native or adopted sons like George Washington Carver, Samuel L. Clemens, Joseph Pulitzer, John J. Pershing, Eugene Field, Sara Teasdale, Langston Hughes, or Thomas Hart Benton. Each of these could stimulate a student to a further study of plant biology, literature, journalism, military history, poetry or art.

Literature might also lead to the folklore of Feebold Feeboldson, who controls the weather in this area, or to *Big Steve, the Double-Quick Tunnelman* who with his rock-hog Daisy piped up some of the Florida weather, or the river boatman, Mike Fink, or the half-legendary Johnny Appleseed who actually got across the Mississippi. And please remember the *Rootabaga Stories*—those fantasies of Carl Sandburg, including the favorite "The Corn Fairies," are part of the lore of this section.

Go from history to geography, and read stories of the River—from *Minn of the Mississippi,* that three-legged snapping turtle who traveled down the river during twenty-five years, to *The Adventures of Tom Sawyer,* or a story of the heydey of steamboats entitled *Down the Mississippi* by Clyde R. Bulla.

Interests develop like a chain reaction



ne building upon the other until there te enough ideas for any child to find omething that meets his unique specifica- ons. But having many books on various eading levels is the indispensable condi- ion for success.

#### . Using Leisure Time

Since 1918 when the Commission on he Reorganization of Secondary Educa- ion listed "The worthy use of leisure ime" as one of the seven cardinal objec- ives of education, the phrase has become in educational cliché. The truth of it, however, has never been more pertinent than it is today, with a thirty-hour, four- day work week somewhere in the offing.

If children have developed good reading habits, a love of reading, a knowledge of where to find what they need, and an ever-expanding variety of interests with a few really serious ones, then "the worthy use of leisure" will in part, at least, be fulfilled.

#### Conclusion

Since social studies contains content that is closest to the interests of human beings—the study of themselves and others—certainly a wide knowledge in this field is imperative. Children's books help provide this through extending information, providing additional detail and depth, clarifying interpretations through illustrations and stories, and creating new interests that lead to further reading and study. But best of all, children's books provide reading fare that is as enjoyable is beneficial.

# 21. Antidote for Apathy—Acquiring Reading Skills for Social Studies

HELEN HUUS

While school keeps in thousands of classrooms throughout our country and while a generation of pupils grows up to take their turn at running the world, time does not stand still. Europe busies herself with the Common Market, Algeria has an uneasy truce, trouble crops up in Indonesia, Argentina, or Syria, and our children study school and community, state and nation, often in a half-hearted, mechanical way, and dull their senses by rote memory, a multitude of proper names (many unidentified), and a lack of zest for the whole idea. Why an apathy for social studies, when it is constantly teeming with action, people, adventure, and daring—all aspects that interest the elementary school child? Why, indeed?

The answer lies, perhaps, in three directions—the pupils' own skills, the materials available, and the teacher's enthusiasm and know-how. The antidote for apathy, as for any evil, lies in counteraction—in working against, and since the opposite of apathy is interest, feeling, activity, and excitement, the obvious way to counteract it is to promote these opposites.

While there are many and varied ways in which such skills might be analyzed, they have been organized into the three general categories of pronunciation, meaning, and application for purposes of this discussion. Each of these will be treated in turn.

## Pronunciation Skills

*Multisyllabic words.* — Whenever a reader faces new material, his first responsibility is to decipher the symbols into meaningful units. In social studies, as in any subject area, the reader applies the skills of phonetic analysis, structural analysis, and context clues that help him arrive at the pronunciation and ultimate recognition of the words he must read. Since many of the words in social studies are multisyllabic words, the reader needs the ability to apply the generalizations dealing with words of this type. Following are five useful generalizations for this purpose:

1. When a word has a double consonant (or two consonants) following a vowel, divide the word between the consonants, such as: Hit-tite, Mis-sis-sip-pi, Hammer-fest, col-lec-tive, Ap-pian, Bren-ner, and tun-dra, Mos-lem, mon-soon, or-bit, or Den-mark.
2. When a vowel is followed by a single consonant in a word of more than one syllable, the division is made *before* the consonant, as in: A-ra-bi-an, A-so-ka, as-tro-labe, co-lo-ni-al, Hai-fa, Rho-de-sia, So-viet, and ve-to.
3. When a word ends in "le," the preceding consonant belongs with the unaccented ending, as in: Bi-ble, mid-dle, Con-stan-ti-no-ple, and mar-ble.
4. When a word contains a consonant blend, the blend is usually not divided, as in: West-min-ster, Rem-*br*andt, manu-*scripts*, Liv-ing-*st*one, and Ca-sa-*bl*an-ca.
5. A word may be composed of a root plus a prefix and/or a suffix. Common prefixes that should be learned are: *un, ex, pre, ab, ad, com, en, in, re, de, sub, be, dis, pro.* Common suffixes include: *ment, tion, tive, ly, less, ance, ness, ful, ship.*

Unless pupils are given practice in using syllabication skills, both in the regular developmental reading class and as applied in social studies and other classes, they do not acquire the needed ease of recognition that allows them to read material of difficulty with interest, and simply plodding along can become a deadly bore.

*Foreign words.*—Even a student who may have acceptable skills in word recognition will almost certainly encounter difficulty when he tries to apply those he knows with some of the words he finds in his social studies reading—words derived from foreign languages that have kept certain elements intact, and proper names that have retained the original pronunciation and have not been Anglicized.

In the first category are such words as: *plateau, saga, mesa, fief, kaiser, hotelier, veld, apartheid, fjord, atrium,* and *ballet,* while in the latter are the French Renaissance, Marsailles, Versailles, St. Chapelle, and Basque, but Paris (not Paree); the German Roentgen, Gutenberg, Bach, Beethoven, Wagner, Worms, and Frankfort am Main (not Maine); the Italian da Vinci, Verdi, Rossini; the Indian Brahman and Buddha; the African Leopoldville, Afrikaner, or Nkrumah; or other difficult pronunciations like Goteberg, the Louvre, and Popocatepetl or Port Said. At any rate, children who learn correct pronunciation of the many proper names in social studies have a small beginning toward becoming multilingual.

*Use of the dictionary.*—Knowing the basic generalizations for getting words independently will help, but there comes a point when even the mature reader needs the verification that can be found only in

an authoritative source. Is it Himälaya or Himalaya? Hamburg or Hämburg? Istanbul or Istambul? Yucatan or Yucatän? Edinburg or Edinboro? The dictionary or glossary should tell, but the difficulty lies in checking the pronunciation initially so that incorrect forms are not practiced and thus become difficult to eradicate.

## Meaning Skills

*Technical words.*—In addition to the pronunciation problems already described, the number of technical words used in social studies promote apathetic reaction. The technical words may be unique to the field or may be words for which the student already has one meaning. In the former category are words like *latitude, longitude, Constitution, Declaration of Independence, dictatorship, consumer, transportation,* and so on. In the latter are such words and phrases as *compass rose,* the *Gold Rush, world trade, the world market, diet* (as in Diet at Worms), *man power, raw materials, fixed salary,* and others equally obscure.

*Abstract words.* — Social studies also abounds in abstract words like *democratic, loyalty, dignity, appreciation, interdependence, conservation, Dark Ages, industrial revolution, capital and labor, the Iron or Bamboo Curtain,* the *Cold War,* and the *New Frontier.*

The antidote for getting meaning into these technical and abstract words lies in tapping the pupils' own experiences by first relating the unknown word to some similar concept within his knowledge—location by latitude and longitude, for example, could be related to the location of buildings at a street intersection. Explanation is another way, and easy, or a study can be made of the word itself by first stripping off the prefix and suffix, as in the word *transportation,* leaving only the root word. Some pupils may already relate the root *port* to other words like *porter* or *portable* and make their own generalization about its meaning. When the prefix meaning of *across,* and the suffix meaning of *the act or state of* are added, pupils arrive at a meaning for *transportation* as "the act or state of carrying across." By substitution in the sentence, pupils clinch the idea and learn its use.

Of course, first-hand experience is the best teacher, and pupils who have been to Sutter's Mill have heard vivid tales of the Gold Rush; first-hand experience with maps will soon clarify what a compass rose is. Excursions are by far the most fruitful techniques for developing vocabulary easily, quickly, and permanently. Students learn new vocabulary naturally as they use the proper terminology for describing a place, an object, a method, or a product. A visit to a mill, for example, clarifies such words as *millwright, grist, rollway, undershot, mill race, vats, roving, carding, spinning jenny, sawyer, turbine, penstock,* or *sluicegate.*

The maps, diagrams, pictures, and other types of illustrations found in abundance in many social studies texts are there for a purpose—to help children visualize the scenes, to help them grasp relationships of rainfall, products, income, taxes, or time. Meaning is certainly enhanced when a diagram or photograph accompanies a description of locks on a canal, water wheels or ladders for fish, when a graph shows the distribution of rainfall for a certain area according to seasons or months, or when a time line puts the Age of Exploration into proper relationship with the Viking Era and the present. To make time really meaningful, let children put their own dates of birth on the line and let them see how short a span their life up to the present actually is.

For those pupils who simply cannot keep up, even with expert help, Fry recommends "glossing" as an aid to comprehension. This means "simply reading to students from the text, stopping frequently to explain concepts and terms."[1] At best, the teacher makes the page come alive by supplementing from his extensive background and, when coupled with enthusiasm, is guaranteed to capture the interest of even the most apathetic.

*Organization skills.*—Inherent in the total complex of skills in comprehension lies those related to the organization or structure of the material. The "cluster" of skills, as Robinson calls them, related to organization includes reading for details and main ideas, changing main ideas to

[1]Edward B. Fry, " 'Glossing,' An Ancient Method to Aid Social Studies Teachers with Reading Instruction," *California Journal of Secondary Education,* XXXII (February, 1957), pp. 90-92.

758.

topics and details to sub-topics, then labeling them in outline form. He presents three steps as a practical approach: (1) locating key words in sentences, (2) finding the key sentence in a paragraph, and (3) determining the main thought in a paragraph.[2]

While pupils may be able to see the structure of a sentence or a paragraph, they must be able also to obtain the larger view of a section or a chapter—yes, even of a total book—if they are to place historical events in proper perspective or obtain an international rather than a national or regional view alone. This means a constant shifting of position as additional information is obtained, and seeing these new relationships may require help. Modern textbooks provide useful aids in their varied type faces, side headings, and sectional titles, and teachers help pupils use outlines. One practical way is to have topics set down without numbers or letters, but using indentation instead to show relationship between main and subordinate levels. Then, as the story unfolds, these outline parts can be rearranged and literally lifted out and placed in the new frame of reference in its proper location.

Certain words act as "cue words" to help readers define organization and relationships, or shifts, and transitions. Such words include: *on the other hand, furthermore, nevertheless, in addition, moreover, since, because, for, but,* and the obvious *first, second, third,* and *finally.* These indicate transition, connection, and relation, and give warning that such will occur. Teachers can give added practice in heeding these signals by concocting exercises where pupils fill in missing connectives or change meaning by substituting other connectives. Another technique is to have pupils locate word clues in their textbooks and other reading materials.

Besides the logical organization embodied in the main idea-detail structure of writing, other types encountered in social studies include chronological organization, with pertinent events related in the order they occurred, or the fictional approach sometimes used in the lower grades, where events lead up to the climax of the story. Time lines help give the proper chronological perspective, as do two-dimensional charts that place topics like "economics," "political history," "geography," "invention," and "trade" along the top of a chart and the names of various countries along the side. Each row then shows one country in relation to each topic, while each column shows the status of that topic in the various countries listed. Such charts can be made for a decade, a century, or even an era, but reducing organization to visual form has the added advantage of sensory appeal. Picture charts serve a similar purpose and catch the interest of some students who might not be enticed by the abstract approach.

Understanding the over-all pattern of a subject area, such as social studies, provides a background and a gestalt for further learning. While this pattern is complicated by the staccato presentation of facts without expansion, by the introduction of many names and terms, and by the remoteness to pupil experience, it has the advantage of providing many new learnings and enough "top" for even the brightest, as well as a certain exotic flavor inherent in eras past and places distant.

*Simple comprehension.* — Anderson makes a plea for the constant use of the "unseen question" as a stimulus for students to read and comprehend. He emphasizes the importance of the reader's purpose, that he set his own, and that he then answers what he started out to find.[3] While it may not always be practical for pupils to set their own purposes, teachers can arouse interest and, together with their pupils, set the purposes for reading. The SQ3R technique (survey, question, read, recite, review) is a similar method couched in catchy terms, but useful nonetheless.

Once purpose is set, pupils need to choose a speed of reading commensurate with the job to be done. For the survey, skimming to locate key words and headings, to see the over-all job, and to obtain an overview will suffice. For the answering of questions, a more careful reading than before is needed. For the review following the recitation, a quick cursory reading will be sufficient. Being able to shift speed

[2] H. Alan Robinson, "A Cluster of Skills: Especially for Junior High School," *The Reading Teacher,* XV (September, 1961), pp. 25-28.

[3] A. W. Anderson, "Directing Reading Comprehension," *The Reading Teacher,* XIII (February, 1960), pp. 206-207, 211.

759.

gears smoothly is a mark of the mature reader, and students need practice under supervision in order to accomplish this task.

*Interpretation skills.* — The intricate "cluster" of skills comprising thoughtful interpretation cannot be discussed fully here; only two will be mentioned—inference and evaluation.

*Inference* refers to those ideas implied but not explicitly stated and which are acquired by reasoning or concluding. The contents of social studies texts are replete with cause-effect implications, time relationships, generalizations about exploration, the effect of terrain on development, the organization of governments, the influence of imperialism or a thousand other ideas. How to teach becomes a problem, for, of necessity, the making of inferences requires the use of higher mental abilities —to see two ideas, to note common elements and make a connection between the two, then adapt the new idea to the unknown — and slow learners will need explicit help in having the points of similarity and relationship specifically cited while fast learners are already applying the method to new content.

The first question that might well be asked in *evaluation* relates to the author and his purpose. "Who wrote this material? Is he qualified to do so?" In an article entitled "The Power and the Glory of the Word," Nance makes the following statement about authors in general:

> The writer is a human being and a citizen. The scope and content of his material will be conditioned by his major interests, his outlook on life, his responses to life, and his experience, knowledge, abilities, and opportunities. . . .[4]

The competency of the author becomes particularly important when facts disagree, or when different works place different interpretations on the same series of events, or when events are presented from different points of view. Finding pertinent information about living authors is sometimes difficult, but students can look at the book jackets, the comment column in a periodical, or the blurbs from the publisher. The reputation of a publishing house can lend dignity and prestige to an unknown author until he makes his mark. At any rate, readers must be taught to consider the source.

Related questions, "Why did the author write on this topic? Was it to advertise, to propagandize, to present information, to present a point of view?" must also be given attention. Nance comments on purposes for writing by saying:

> Writers throughout the centuries have had many different goals: To recover the past, to record and conserve for the future, to interpret, comment, report, arouse, condemn, defend, entertain, annoy or to obtain personal or institutional publicity.[5]

Certainly if there are hidden or ulterior motives, students should be able to locate the signals and analyze the material accordingly. The use of sweeping generalizations not backed by data or examples, the "snob appeal" so rampant in advertising, the pseudo-scientific surveys often quoted, the testimonial or "everyone believes" technique, or the use of emotionally tinged words like *fellow traveler, anarchy, slave, imperialistic, dictatorial,* or *beneficent, philanthropic, generous, handsome, immense proportion,* or *gigantic, collossal, stupendous, magnificent,* reach various people in different ways. It becomes important to create in readers a studied wariness that aids them in objective judgment: to paraphrase *caveat emptor,* "Let the reader beware!"

The second question in evaluation ought to be, "Is the information true?" In part, a reputable author's word is taken, but skeptical readers and careful scholars check to see if facts agree and decide if enough facts are presented. Here is where the student's knowledge and background come into play, for his incidental or systematic learning serves as a backboard against which to bounce the ideas of the author, as well as to raise questions about facts that seem somehow to ring not quite true. Checking against other references—encyclopedia, atlas, almanac, or any number of handbooks and general works—becomes necessary, and through practice and guidance students become proficient in locating the right source and finding within that source the material needed.

A third aspect of evaluation relates to the quality of writing exhibited by the

[4] E. C. Nance, "The Power and the Glory of the Word," *Vital Speeches,* XXIII (April 1, 1957), p. 381.

[5] *Ibid.*

760.

author. For illustration, the following excerpt from an article entitled, "Hong Kong Has Many Faces," in a recent issue of *National Geographic* describes Hong Kong's rise as an industrial city:

> For decades . . . Hong Kong was the front door for the great China market. Sitting astride the world's trade lanes, the city endlessly shuttled goods in and out of its busy warehouses, bound from China to the world, and from the world to China. Then came the Korean War. The United Nations voted an embargo on trade with China, and Hong Kong — the old Hong Kong — sickened.
>
> The city might have died if another "disaster" had not come along at almost the same time. The years of the refugee were 1949 to 1951, when men poured out of Red China in the hundreds of thousands.
>
> "Fortunately," he said, "that problem arrived with a built-in solution, for the refugees were not all poor men. . . .
>
> "Here, in one place, were capital and labor, eager to work together."[6]

Figures of speech like *the front door, sitting astride, sickened . . .* and *might have died, men poured out,* and *a built-in solution,* add meaning through the imagery and relationships implied. Certain of the words connote a tone that transcends the description. These words create a feeling of greatness and strength, as implied in the phrases *front door for the great China market, sitting astride the world's trade lanes,* and *endlessly shuttling.*

The style of writing—the figurative, picturesque, and connotative aspects—influences the reader's understanding and reaction to what he reads. A lack of awareness of the subtleties of style will result either in gullability or lack of accurate perception.

The acquisition of complete meaning, therefore, lies in the reader's ability to understand the technical and abstract vocabulary, to grasp the structure and organization of the whole, to interpret the ideas implied but not directly stated, and to evaluate not only the author's competency and the validity of his statements, but his style of writing as well.

## Application Skills

*Problem solving.*—The third reading skill to be emphasized here is reacting to and using the ideas and impressions gained through reading. The highest level of reaction and application is the actual integration of the concepts, attitudes, and appreciations into the reader's own life so that what he reads becomes a part of him forever. For each person, there could be compiled, perhaps, a list of "Reading that changed my life." And is not this, after all, the ultimate goal of education—social studies, too—to change people from illiterate to literate, from uncultured to cultured, from irrational to rational? When reading materials in the social studies serve this goal, they are powerful agents indeed.

Students may react to their reading about Hong Kong, for example, by changing or forming opinions about the city itself, the people who live there, or they may do further research in order better to understand this complex city.

*Extended Reading.*—What other use can the student make of his new found skills in reading? Merely keeping up with textbook assignments keeps some students busy, but even they should have an opportunity to use some of the beautiful, interesting, up-to-date books about our own and other countries, about historical eras, geographical areas, and the function and operation of government. The hundreds of books for children published each year contain a wealth of information; teachers need but to make them available to the right children at the right time.

Teachers stimulate extended reading when they take time for current events, for even elementary school children are interested in weather, sports, space, royalty, and the President and his family. Keeping up to date with the news is a good way to establish the habit of news reading with young children.

But it is in books that many children find their identification with heroes of another age or of another culture. Serviss recommends that teachers "help children find books convincing in portrayal, vivid in sensory imagery, reasonable and alive in characterization, discerning in the revelation of universal traits."[7]

Library books contribute in various ways to make the social understandings mean-

[6] John Scofield, "Hong Kong Has Many Faces," *The National Geographic Magazine,* CXXI, No. 1 (January, 1962), pp. 9-10.

[7] Trevor K. Serviss, "Reading in the Content Areas," *Elementary English,* XXX (October, 1953), p. 359.

761.

ingful and interesting to children. They paint images in depth and detail, for one paragraph in the text can be amplified by extended treatment. They clarify concepts and expand reasons only briefly mentioned in the text, and they put the breath of human life into historical characters and people who live in other countries.[8]

In choosing books to counteract the pallid fare or pulp material so easily available to children, first ask, "What do children of this age *like* to read?" If the group is young, they like stories of children their own age, animals, slapstick humor, pictures with clear colors and not too much detail, and simple plots with repetition and refrain. A book like *Nu Dang and His Kite* not only tells of Siam (Thailand) as Nu Dang paddles up the long river to look for his kite, but also contains the gloomy refrain, "But nobody had seen it. Nowhere. No kite at all." Fortunately the kite is at home when Nu Dang arrives, for the wind had carried it there; so the ending is most satisfying to young readers. Children sympathize with Ping, the duck who runs away rather than being last on the boat and getting the spank he knows will come, for they, too, know that "fair is fair." But they rejoice when he escapes, and they realize that after all, a spank is nothing much compared to what Ping has survived.

Children learn about the world of work through such books as Lois Lenski's *Farmer Small, Cowboy Small,* and *Pilot Small,* or through Burton's *Mike Mulligan and His Steam Shovel,* or Bate's *Who Built the Bridge?* While some of these books personify machines, nevertheless the power and importance of their work is clearly portrayed. Children get gentle nudgings about manners from Munro Leaf, and through the charming books of Tasha Tudor they follow the seasons and the calendar, learn to count, and recite the alphabet in order. Holidays give a chance for biography—the colorful picture books by the D'Aulaires of Lincoln and Washington, Franklin, and Columbus—or for stories like *The Thanksgiving Story* and *The Fourth of July Story,* by Alice Dalgliesh, or *The Egg Tree,* that won the Caldecott Award, and *Patrick and the Golden Slippers,* that tells about Philadelphia's annual New Year's Day Mummers' Parade. (Yes, there are many books that appeal to younger children.)

The middle-graders love adventure and mystery, exploration and invention, and girls begin to look for romance. All of these can be found in books that enhance the social studies. Biography is fun when there is *Ben and Me* to compare with the facts, or *Mr. Revere and I.* History becomes contemporary when *Adam of the Road* contains the story of a budding wandering minstrel, an eleven-year-old boy who has lost his beloved dog, even though the story begins in the year 1294. Geography is really people when preadolescents follow Big Tiger and Christian, who get caught on a troop train just because they tried to fly their kites from an empty box car. Their adventures through Mongolia and Sinkiang include robbers, bandits, a lama, and soldiers, and the responsibility of carrying a secret message. Geography is people when Young Fu has grown gradually into a capable coppersmith craftsman, and when Li Lun, Lad of Courage, plants seven grains of rice on the highest mountain, then tends the last grain so that it survives to bear rice heads. Thus he shows his people a new way to combat hunger. Geography is people, too, when Momo, a little Tibetan girl, follows the trail of her stolen golden Lhasa terrier, Pempa, from her home in the hills to the busy city of Calcutta. Even boys will thrill to the suspense in this story, and all who read it will learn about the people of the mountains and about their customs and country. Pearl Buck's story of Japan, *The Big Wave,* Armstrong Sperry's *Call It Courage* and Elizabeth Lewis' *To Beat a Tiger* are other books that show the character, traditions, and problems of peoples of the Far East.

Older boys and girls can find in books stories that contain the drama and daring of yesterday and today—books like those of Roman Britain by Rosemary Sutcliffe or *The Byzantines* by Thomas Chubb, which begins during the Fourth Crusade in 1203 and describes the wealth and culture of this great empire at the cross-

[8]See Helen Huus, *Children's Books to Enrich the Social Studies: For the Elementary Grades.* Bulletin 32 (Washington, D. C.: The National Council for the Social Studies, 1961), p. 196.
The World History Bibliography Committee of NCSS, Alice W. Spieseke, chm., *World History List for High Schools: A Selection for Supplementary Reading.* Bulletin 31 (Washington, D. C.: National Council for the Social Studies, 1959), p. 119.



roads of the world. *Engineers Did It!* contains interesting accounts of feats like Roman aqueducts and roads, the flying buttresses of the cathedral at Amiens, and the laying of the Atlantic cable, while modern adventures are depicted in books like *Kon Tiki,* or Quentin Reynolds' *The Battle of Britain.*

These are but a few of the exciting, well-written, vivid tales that transport the reader for a time into another era, another place, another culture, and allow him to identify himself with these heroes to obtain vicariously some of the emotions, the grandeur, the problems of a different age, a different sphere. When he returns to reality, he will be more knowledgeable, more insightful, more understanding, and more thoughtful than before his flight of fancy, and this, in itself, is reward enough.

## Summary

And so it becomes evident that pupils who have the skills of pronunciation and recognition, who can put meaning into words, see order in the content, delve beneath the written word and look at the total with a studied appraisal have acquired the reading skills that make social studies an enjoyable experience. Then when pupils have, in addition, books and books that let them rove through the world and down the centuries, vicariously experiencing the triumphs and disappointments of people who really lived or might have done so, then teachers can say, "We tried to teach them about people. We taught them to read and think. We gave them books and time to read. We helped them when they asked and prodded them when they would be complacent. It remains for the future to tell how well we have succeeded."

762.

243.



## E. Reading in the Content Areas

### 1. Assessing the Reading Needs of Students in the Content Areas

EDITH JANES

The knowledge of the range of abilities and reading achievements of the pupils in a class enables the teacher to plan instruction intelligently, to make provisions for individual differences, to select appropriate materials, and to provide a continuous check on pupil progress.

Teachers who meet the needs of a new class systematically plan:

1. To find out where to begin instruction. This is necessary so that pupils do not become bored with repeating known material or become frustrated by lessons too difficult.
2. To know the I.Q. of each pupil in order to estimate the rate at which he can be expected to improve. This is important so that the teacher can plan the specific types of instruction needed by slow learners, by average pupils, and by accelerated groups.
3. To compare each pupil's reading achievement score with his I.Q. in order to estimate his reading grade expectancy. This helps the teacher identify those pupils who are working up to capacity and those who need to be challenged to greater efforts. Examination of anticipated scores and subtest scores help provide such information.
4. To survey the collected information about each pupil, to select materials to be used, to plan and to teach lessons geared to individual and class needs.

This discussion will be concerned only with assessing needs of pupils. Ways to meet these needs will be discussed in succeeding presentations in this sequence.

Able teachers determine needs of their pupils by assembling information from standardized tests, cumulative records, informal tests, observations, and interviews.

#### Standardized Tests—Cumulative Records

Reliable standardized tests are available to evaluate reading achievement or to assess needs in various content areas. A test which measures the skills which it purports to measure should be selected. Professional books by reading and content area authorities contain recommended lists of tests. Examination of a sample of the test should be made before placing school orders.

The cumulative or permanent record of a student often yields pertinent information about his academic progress, his attendance, his general health, and his family background.

Results of standardized tests and information on cumulative records should be readily available to classroom teachers. Teachers should remember that:

1. Scores on standardized reading tests are usually one level above the pupil's instructional level. Therefore a pupil scoring 5.2 on a reliable reading test should probably receive instruction in a fourth-grade book.
2. Changes in pupils' reading levels have occurred during the time following the last recorded scores.

#### Observations

The alert teacher observes pupils at work, records noticed weaknesses, and plans activities to overcome them. Pupils with such problems as lip movements, finger pointing, inadequate rate and comprehension skills, and poor study habits are easily identified for specific help.

#### Informal Inventories

During the first weeks of school, teachers use informal devices to estimate each pupil's instructional level quickly.

763.

An informal word recognition inventory may be prepared from several graded texts in reading or in content areas. This vocabulary test may include ten to 15 words from primary-grade texts and 20 to 25 words from upper-grade texts. These words may be presented for flash recognition by the teacher's manipulation of two small cards in such a way that words are exposed singly in rapid succession.

The grade level at which the pupil misses more than one word may be considered his tentative instructional level and may be used as a guide for assigning books in reading or content area classes.

It may also be used as the starting place for administering an individual informal reading inventory.

A group informal reading inventory provides a rapid survey to find the instructional reading levels of individual pupils. Sets of books ordinarily used in the classroom may be used to test general ability and achievement.

A teacher may administer an informal silent reading inventory to find the instructional level of each pupil:

1. By asking pupils to read silently a selected story near the front of their reading texts.
2. By checking comprehension through pupils' written response to questions based on the story. (Include fact questions, inference questions, vocabulary questions, and summary questions.)
3. By asking those pupils who answered all questions correctly to read a similar selection in the next harder book in the series.
4. By asking those pupils who answered less than 75 per cent of the questions correctly to read a similar selection from a book one grade easier in the same series.

The grade level at which the pupil can answer 75 per cent of the questions correctly may be regarded as his instructional level. This would indicate the grade level of text that should be used for instruction.

An informal oral reading inventory may be administered using the same format. Pupils in small groups or individually may read a short selection aloud and answer the questions orally. Pupils should be able to pronounce correctly 95 per cent of the words in material at his instructional level. Only in testing situations are pupils asked to read orally at sight.

A pupil's independent reading level is normally one grade below his instructional level. Books read for pleasure should be at this independent level or easier so that pupils can enjoy the story without encountering the frustration of new and difficult words.

Most educators believe that a child's innate ability is reflected in his capacity for understanding what he hears. They believe that if he can hear and understand an eighth-grade story, he can read an eighth-grade story if his skills function at that level.

When I.Q. scores are not available, many teachers administer group listening ability tests, sometimes called hearing capacity tests. While they are probably less accurate for high school pupils than elementary pupils, listening tests do aid teachers to identify pupils with average, below-average, and above-average ability.

A teacher may administer a group listening ability test to find the hearing capacity of each pupil:

1. By reading to the pupils a story at their grade level. (For example, fifth-grade pupils would hear a fifth-grade story first, then harder or easier selections as indicated by pupils' responses.)
2. By checking comprehension through written response to questions based on the story. (Include fact questions, inference questions, vocabulary questions, and summary questions.)

The grade level at which the pupil can answer 75 per cent of the questions correctly, may be regarded as his hearing capacity or listening ability. By comparing a pupil's hearing capacity grade level with his actual grade level the teacher perceives a fairly accurate indication of whether the child's innate ability is average, above-average, or below-average for his age.

Classroom teachers may identify poor readers with average and above-average

ability by careful observation. The following types may be able pupils needing reading instruction:

1. Pupils who can discuss intelligently what is read to them and what they see or experience, but who cannot read a lesson and understand it.
2. Pupils whose Language I.Q. on intelligence tests is much lower than his Non-Language I.Q.
3. Pupils whose Actual Score on Arithmetic Reasoning is much lower than his score on Arithmetic Fundamentals. This may indicate that he is not able to read the reasoning problems but has the mental ability to solve the problems if he could read them.

Betts[1] explains informal inventories in detail and provides directions for constructing and administering them.

In our school system, classroom teachers use informal inventories prepared from material in the basic readers. Our special reading teachers have constructed two forms, based on another series for use in our reading improvement classes.

Teachers in content areas may prefer to use published material for their initial tentative evaluation. Lists of valid tests easily administered include the following tests:

1. Austin, M. C., Bush, C. L., and Huebner, M. H. *Reading Evaluation.* New York: Ronald Press, 1961, pp. 235-246. (Grades 1-8)
2. Gilmore, J. V. *Gilmore Oral Reading Test.* Chicago: World Book Company, 1952. Forms A, B (Grades 1-8)
3. McCall, William A. and Crabbs, Lelah Mae. *Standard Test Lessons in Reading.* New York: Teachers College, 1961. Books A, B, C, D, E (Grades 2-12)
4. Smith, Nila B. *Graded Selections for Informal Reading.* New York: New York University Press. 1959. (Grades 1-3)

Gray and Reese state that "Reading in the basic reader constitutes an easier task for children than reading in the content fields. Various important factors are controlled in the basic reader which cannot be similarly controlled in books dealing with subject-matter content. For example vocabulary in the content field is usually more difficult; new terms are introduced faster and with fewer repetitions; more facts are presented to the reader; greater retention is expected; and references to previous facts occur with more frequency in historical, geographical and other such materials."[2]

Certainly the content area teacher needs to check each pupil's ability:

1. To master the specialized vocabulary of the subject by efficient use of such aids as context clues and structural analysis.
2. To do the kinds of reading required in the subject such as the problem solving approach in mathematics and science.
3. To perform the specialized reading tasks required in the subject, such as the reading of maps, charts, and resource material.

Content area teachers will learn much about each pupil's ability to read the text by preparing tests based on its material. The class should be told the purpose of the informal tests and understand that the results will not affect their class grades. Teaching may be combined with diagnosing as the answers are discussed with the class.

In planning for assessing pupil needs in reading a specific text, the content area teacher should first list the major reading skills necessary for the subject. Each day for several weeks one section of the daily assignment may be used as an informal test. Such tests would provide a check on background for the subject and on such skills as:

1. Ability to recognize context clues
2. Understanding of concepts and new words developed in previous grades
3. Ability to use the vocabulary correctly
4. Ability to use parts of the book
5. Ability to read the material orally

[1]Emmett A. Betts, *Foundations of Reading Instruction.* New York: American Book Company. 1957. pp. 438-485.

[2]Lillian Gray and Dora [illegible] *Teaching Children to Read.* New York: Ronald Press, 1957, p. 321

765.

6. Ability to identify main ideas and supporting details
7. Ability to perform other specialized reading tasks, identified by the teacher as necessary for efficient reading of subject area material

Teachers' guides accompanying content area texts usually contain good suggestions for assessing needs of pupils. Smith[4] provides word lists and vocabulary exercises in specific areas.

A check of specialized vocabulary words learned in the subject during the previous year enables the teacher to plan more effective instruction. For example, a list of social studies words and concepts used in informal testing for a beginning sixth grade would include such words as island, peninsula, and plateau. Pupils who make many mistakes will need specific instruction to develop a meaningful vocabulary. Pupils who understand the concepts taught in previous years can progress more rapidly and can study more independently.

Shepherd[5] gives specific directions and examples for assessing reading needs in social studies and science. His books were prepared for secondary teachers but contain many hints for all teachers of those subjects.

Strang and Bracken[6] show an example of a practice lesson in the reading of history. They include a diagnostic spelling test in the appendix.

## Personal Interview

Teachers learn significant facts from their daily contacts and personal interviews with pupils. These should be recorded for future reference.

## Summary

The efficient teacher combines information from standardized tests, intelligence tests, cumulative records, observations, informal tests, and personal interviews in order to find the instructional reading level, to select materials, and to plan instruction.

The assessing of reading needs in the content areas is a continuing process. The evaluation of pupil progress during the year identifies needs for special instruction. The material in each new unit must be surveyed to identify new words and new skills which require specific instruction.

Two favorable trends are apparent as we survey the future. Many authors of subject area materials are making books easier to read without neglecting content. More content area teachers are accepting the responsibility for helping students develop reading skills, habits, and attitudes needed in their own subject areas.

---

[4]Nila B. Smith, *Be a Better Reader*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961. Books I, II, III, IV, V, VI.

[5]David L. Shepherd, *Effective Reading in Science* and *Effective Reading in Social Studies*. Evanston, Illinois: Row, Peterson and Co., 1960.

[6]Ruth Strang and Dorothy Bracken, *Making Better Readers*. Boston: D. C. Heath and Co., 1957, pp. 222-233, 356 .

766.

244.

Vol. 9, 64



# D. NATIONAL COUNCIL OF TEACHERS OF ENGLISH

## 1. Reading Skills in Teaching Literature in the Elementary School

WILLIAM A. JENKINS

WHAT ARE vital reading skills that must be considered when teaching literature in the elementary school? I think the list is as comprehensive as our knowledge of reading. However, let me highlight some basic ones.

First of all, I believe that as a child learns to read and increases his power to read, he must be taught to interpret life in varying degrees of seriousness, whether through skimming or through reflective reading. Just as the contexts of literature can be varied widely to teach words and phrases, they can be varied widely for depicting man and his concerns.

A child should be taught that language has nuances, subtleties, and intricacies. He should learn to recognize these and to understand how they create differences in the author's intent and effect. Only wide and varied types of reading can fully accomplish this objective.

A child should be taught to interpret a wide range of vocabulary and discourse, even in dialect. Again, only a wide acquaintance with books, authors, themes, plots, and styles can accomplish this aim. Least effective are the readers set in middle-class or suburban environments with children who never cheat or steal; who do not have to fight for life, sustenance, and recognition; who are never frustrated, thwarted, or defeated; who never seemingly encounter parental tyranny, yellow, red, or black skins; who do not know poverty, squalor, hunger, or fatigue. They do know these—only they know them outside of their books. Out of school they frequently have experienced these and even more impressive facts of life—a younger sister dying of starvation, as recently happened in Kansas City to a child who was regularly given breakfast at school. When this happened, he could no longer eat. He lost his appetite! Knowledge of fathers who communicate only when in a drunken stupor, as Charlotte Brooks has vividly described in her pictures of the culturally disadvantaged in Washington, D. C.

A child needs to be taught to pursue a series of events in order of time. Stories should do this for him.

He must be taught to grasp the tone and mood of a reading selection. Again wide reading will provide the opportunities. This includes being read to, and reading connected discourse aloud.

A child must, of course, be taught comprehension of both the main idea and pertinent details. Practice in this is readily provided by stories which have a skeleton of plot that can be stripped away and to which details can be readily fastened and pegged.

In reading in the elementary school a child must be taught to use pictorial aids to meaning. Readers and trade books both afford opportunities for developing this skill, but in my experience teachers too seldom seize the chance or use it at its maximum.

A child must be taught to make generalizations from the specific instances he encounters in reading, and he must learn to become emotionally involved through characters and events which he encounters in his reading.

With limitations, a child must learn to recognize and understand the figures and other esthetic elements he encounters in his reading. I say with limitations, because here, too, our notions are being questioned. Many teachers at all levels have assumed that in a child's early reading of myths, folk tales, Bible stories, and so forth, he builds a foundation of allusion upon which later literary experiences will rest. A study being conducted by Dr. James Squire, NCTE Executive Secretary, to be published some time this year, may change our position. Based on an analysis of fifty anthologies, Dr. Squire's study tentatively has found that upper grade children *do* need a background knowledge of the Greek myths (particularly the Trojan War); and of the Arthurian cycle. More allusions refer to Arthur and his Knights than to all other figures in British and American folklore combined. The study has found also that children need a knowledge of Bible stories of the Old Testament. Of less importance, according to this study, are the Norse myths, stories of the Far East, American folk tales, and English balladry.[3]

A final reading skill area in teaching literature in the elementary school must be vocabulary. In young children vocabulary grows through finding the best word to share experience. Their language development evolves as they move from egocentric concerns to the group life of school and as their teacher takes them beyond themselves in both reading and non-reading activities. For older children, the quickest way to climb the reading vocabulary ladder is to read widely in books which are exciting or personally meaningful.

767.

245.



and their driving curiosity to learn more.

Fortunately there is a remarkable array of children's books about astronomy and space travel. So adults can easily guide boys and girls to books about their favorite subject.

Yet children's interest in science is not new. The current wave of enthusiasm over outer space simply highlights what has been obvious to anyone who observes children closely. For by nature children are curious. A young child reaches out to stroke the cat and thus gets the feel of the warm fluffy fur. Given a flower, he pulls off the petals as a way of seeing how this thing is put together and what it really is. It is the child's natural way of reaching out to learn.

Oddly enough both parents and teachers have often been guilty of squelching this natural curiosity of children. We scold the toddler who is getting the feel of wet sticky mud by squeezing it through his fingers. We punish the young gardener who pulls up baby carrots to see if they are ready to eat.

We discourage children's insistent questions by admonitions to "hush up" or by dead-end answers that close the door to further inquiry. In some instances, we have dampened children's interest in science by providing books which are so oversimplified as to belittle the child, so inaccurate as to give misinformation that will have to be unlearned later on, or so dull as to form a damper to learning.

### Reading As a Way of Life

Yet the child's natural interest in science can be an incentive to reading. It is particularly valuable if we think of reading as a long-range means of continuing intellectual growth.

Sometimes we speak of learning to read as though reading were an end in itself. Yet we know that reading is much more than skill. It involves understanding and hence personal and intellectual growth. Yet this can happen only if the individual finds reading material which is appealing and stimulating. A child needs books that answer his questions and at the same time whet his appetite. And we need to look at children's books with a critical eye to find the reading material which will help youngsters grow as thinking individuals.

c. ***Nature, Science, and Children's Reading***

NANCY LARRICK

Sputnik I and the first men in space ...e dramatized children's interest in ...nce. Even a five-year-old asks detailed ...uestions about outer space and the pos...ibility of visiting the moon someday. By ...uch questions youngsters show that they ...lready have a remarkable fund of infor...ation about this branch of science. In ...any cases, the children are far ahead of ...heir elders in their knowledge of science

768.

### What to Look for in Science Books for Children

The December, 1960, issue of *Natural History*[1] carried an article which stunned authors, editors, and publishers of science books for children. It was a critical review of a significant number of children's books dealing with various fields of science and natural history. Some books received scathing denunciation because of inaccuracies, serious omissions, or gross distortions of fact.

This article, it seems to me, marked the coming of age of science writing for children. And it should give valuable guides to those who must select books for children and introduce them in the classroom.

What are the marks of a good science book for children? First, it must be completely accurate in both text and illustration. (On this point *Natural History* reviewers bring disarming news of misinformation in some children's science books, even those bearing the recommendation of so-called authorities in the field.)

Second, it should be written in a readable style. In scientific material for children, the author always has the problem of writing simply while maintaining complete accuracy. In the effort to use easy words, a number of authors have fallen into what I have come to call the "dish-hole" dilemma—a situation which takes its name from one author's easy-word substitute for "crater," referring to craters on the moon. Such a term, easy though it is, is a glaring case of misinformation resulting from over-simplification.

Still other authors, in their effort to make material simple, have talked down to their readers. Children, I am glad to say, resent such condescension.

Strangely enough, many authors and editors seem to assume that the only way to improve readability is to use simple words. They overlook—and hence omit—such aids to reading as a table of contents, an index, and captions and labels for the illustrations. Yet a good table of contents is a skeleton outline of the subject which will help a child get the over-all picture at a glance or assist him in finding the section of particular interest to h index is essential to the child wh ferret out the answer to a particul tion or who would go back to something of particular interest. illustrations without captions or leave many a child baffled as he tu pages and wonders whether this him. It is strange, indeed, that the of *Life* feel the urgency of inc captions for their adult readers, many an editor of children's book this reading aid.

In the third place, it seems to m a good science book for children s be inherently appealing. The fac science are "truth stranger than fic yet many an author, eager to wi youthful readers, resorts to extra devices which he hopes will mak material more interesting. The belie or-nots of science are describe "dramatic," and "exciting," or they called *magic* or *mysteries*.

Exclamation points are sprin throughout like salt on potatoes. Ele bells "buz-z-z-z" or "r-r-r-ring," as the that spelling device could add to marvel of science at work. Someti colloquialisms and backyard chatti break into the serious explanation scientific phenomena. ("Then what you think happened? Well, the magma inside the earth pushed throu the crack in the rock. That's what it did.

This is a phony, insulting to the ch and belittling of the subject.

As a fourth mark of a good scier book for children, I like to ask what t book will do for the child as a growin thinking personality. Will it encoura him to seek further and read more exte sively? Will it help him to think critical and to observe with greater sensitivity These are hard questions to answer, c course. The book that kindles one child zeal to learn may leave another unmovec But there are some children's books o science that would never lift the sight of anybody.

### A Sampling of Books

Let's take a look at some of the recent children's books of science with an eye to these four measures of excellence.

*The Tale of a Meadow* and *The Tale*

[1]The Journal of the American Museum of Natural History, Central Park West at 79th Street, New York 24, N. Y.

*a Pond* by Henry B. Kane (Knopf) are outstanding books of natural history. The text has a poetic quality, the photos and drawings by the author are exquisite, the interrelation of plant and animal life is made abundantly clear, table of contents and index are good working tools, and the author's sensitivity and enthusiasm make any reader want to go forth and see for himself. The omission of captions for the illustrations is the only shortcoming in these excellent books. (Grade )

*nimal Clocks and Compasses; From mal Migration to Space Travel* by argaret O. Hyde (Whittlesey House), ough less beautifully illustrated, presents interesting information in a simple, straightforward style that is appealing. ade 5 up.)

*Edison Experiments You Can Do* (Harpresents experiments from Edison's books with introductory text explaining the significance of each. The format and style of the book are adult in every way but the reading level is appropriate for most junior high school students as well as advanced science enthusiasts in the middle grades.

*About Great Medical Discoveries* David Dietz (Random) and *All About Ice Age* by Patricia Lauber (Random) give authentic information in highly readable style with well-captioned photographs and rich detail. Both are indexed. (For ade 4 up.)

*rom Bones to Bodies: A Story of ontology* by William Fox and Samuel es (Walck) explains the purpose, and achievements of paleontology interesting and well organized ood photographs. (For Grade 5 l up.)

*irst Book of Measurement* by Sam and Epstein (Watts) is a lively explanaf common measuring devices, in exact language that is very g. (For Grade 4 up.)

*Be and After Dinosaurs* written d illustrated by Lois and Louis Darling Morrow is a beautiful book with text illustrations that are closely related. ever, it suffers from having no table ents, no chapter headings, no nde and in many cases no caption or label for the art. The book reads much younger than it looks. (For Grade 5 and up.)

*Grasshoppers and Crickets* by Dorothy Childs Hogner (Crowell) for younger children is clearly written, informative, factual and charmingly illustrated. The author dares to use technical terms in her anatomical descriptions and will thus delight young readers.

*The Moon Seems to Change* by Franklyn M. Branley (Crowell) is simple enough for most first graders, but appealing to older youngsters as well. It includes easy experiments which will help the child find answers to his questions.

*The Quest of Isaac Newton* by Barbara and Myrick Land (Garden City) is a very modern looking book with vivid and unusual art work and readable text. Despite its picture-book format, it has a grown-up look that will appeal to many fourth and fifth graders.

*The Curies and Radium* by Elizabeth Rubin (Watts) is one of the new series of First Biography Books for middle graders. It has only a few black-and-white illustrations, but the text makes interesting reading and seems more likely to appeal to children than the highly fictionalized stories sometimes called biography.

**In Conclusion**

These are only the barest handful of the hundreds of new science books for children. But I have described them in this detail to show what tempting reading material is available for children today. I believe that books such as these will capitalize on children's inborn curiosity about nature and science. And with such books, young readers will develop an inquiring approach to life and the world around them. Then, truly, we may say that through reading they have gained a full life.

710.

246.

correlate these abilities with the stages of the child's development.

For the purposes of this paper, "critical reading" will include those processes by which the reader (1) interprets materials —concrete and abstract (verbal), (2) utilizes his previous experiences as objective referents to judge the relevancy, authenticity, sincerity, and utility of the object or the statement, and (3) arrives at a conclusion or course of action.

The critical reader must (1) perceive relationships between words, percepts, and concepts; (2) appraise the author's statements by ascertaining their relevancy to his problem, their authenticity, their objectivity, their agreement or disagreement with statements of other authors or speakers, and their truth or fancifulness; (3) draw inferences from the author's implications; and (4) reserve conclusions until all obtainable facts are perused. In addition, he must not close his mind to further discoveries which should influence his conclusions or courses of action.

Can the teacher develop these skills through effective teaching? A review of the research findings leads to the conclusion that not only *can they be* but that they *must be* developed if democracy is to survive.

A prevailing misconception is that critical thinking is concerned primarily with the effective handling of propaganda. Propaganda exemplifies vividly the need for critical evaluation. However, overemphasis of this kind of writing can result in the neglect of other important aspects of critical thinking which enable the reader to apply critical standards to his choices of thought and action—social and personal.

### An Assumption

It may be assumed that the child at any stage of his development may think critically provided he has had adequate experiences, language facility, and opportunities for applying thinking skills. Given the opportunity, as early as the preschool years, he can formulate judgments, distinguish between fact and fantasy (fact and opinion), make comparisons and contrasts, interpret feelings, ascertain relevancy, detect bias, and judge

## 3. Critical Reading in the Content Areas

WILL J. MASSEY

For the past decade or two the terms "creative reading" and "critical reading" have been appearing with increasing frequency in the professional literature. There seems to be little agreement among those who make use of these terms. Often the two are regarded as synonymous. Inherent in each writer's concept is "reading between the lines"; i.e., using higher level mental processes to probe beyond the literal meaning of the author's words.

"Critical thinking" is often included in "creative thinking," along with the discovery of implications, inferences, and appreciations of the author's ideas. Research has not as yet delineated all the abilities involved in critical thinking, nor has it shown the most effective way to

771.

validity. Some examples from literature and social studies will illustrate the possibilities for cultivating skills of critical reading at various stages of the child's development.

Although it is difficult, if not impossible, to isolate the factors involved in critical reading, an attempt is made here to trace the development of skills in formulating judgments and ascertaining the relevancy of information through the various school levels using literature content.

Literature content provides an excellent opportunity for the teacher to cultivate skills of critical reading.

## Formulating Judgments

Before the child reads, he can be aided in formulating judgments by such exercises as the following:

1. Something we can sit on is a ..... (The child selects from his experience an appropriate word such as *chair, stool,* or *sofa.*)
2. John went wading in the ..... (*pool, lake, puddle,* etc.)

In the primary grades, further development of this skill is made possible by exercises which call for judgment. Examples follow:

1. There was a large truck in the Smiths' driveway. Men were putting furniture into the truck. What were the Smiths doing? Watching TV? Moving to another house? Going on a picnic? Moving into the house?
2. The peddler left the Smiths' house with a lighter pack but a thicker billfold.
   The Smiths had bought nothing.
   The Smiths had bought a great deal.
   The Smiths had told the peddler to go away.

At the intermediate level, questions such as the following call for higher level judgments:

1. Could the dog solve his problem as his master did or did he have to accept what happened to him?
2. Does a porcupine shoot his quills?

The junior-high student should be encouraged to make use of his experience—direct and vicarious—to formulate judgments needed in the following situations:

1. Have the child decide which characters from stories read have similar characteristics. Discuss teen-age problems. Then ask such questions as:
   a. Are the problems of these children normal problems?
   b. Do all teen-agers have some of these problems?
   c. Are the solutions that are given to the problems realistic solutions? Why or why not?
2. After the child has read a story about mountaineers, the question: "Do the mountaineers believe in witches?" can be used to cause him to produce evidence for his judgment.

More advanced critical judgment must be required at the senior-high level. Illustrative activities to elicit this kind of thinking are:

1. In what spirit does the author poke fun at the British? Do you think they could be offended by his remarks? Justify your answer.
2. Compare this realistic "Western" with the kind you see on TV. How do the two differ? Which is more likely to be a true representation of the Western movement?

It is apparent that the foregoing examples which illustrate situations calling for formulating judgments also involve comparing and contrasting, distinguishing between fact and opinion, interpreting feelings, etc. They do illustrate, however, the fact that children at all levels can be guided in cultivating this skill at increasingly advanced stages, with increasingly complex concepts.

## Ascertaining Relevancy

Prereading experiences which call for the examination of evidence to decide whether it fits the situation may take the form of the following:

1. Have the child tell which pictures belong together. (*dog,* chair, *cat*) (*carrot, beet,* lettuce)
2. To tell time you would use a ..... (*clock,* block)

Primary-level exercises such as the following may be used:

1. Cross out the irrelevant statement in the story.
   "I see a big airplane," said Jimmy.
   "See the airplane go up.
   See it come down.
   It can go up and down.
   See the train stop." (Irrelevant)
2. Select the best title for the story:
   a. Christmas in July
   b. The Bicycle Tree
   c. Jody Wants a Bicycle

More advanced skill in ascertaining relevancy is necessitated at the intermedi-

ate level. The following activities can be useful:

1. How is this story like another story we have read? How is it different? Why does this story belong in this unit?
2. In comparing the story facts with other data, does this biography agree or disagree with information from other sources?

The junior-high student should be able to ascertain relevancy in these activities:

1. Ask the pupil to indicate which sentences are irrelevant to the plot of the story and why they are not necessary to develop the meaning, although they may add interesting details.
2. What kind of person was .....? Why? Are these good reasons for calling him .....? Do you feel he had good reasons for acting as he did? Cite examples.

More advanced application is called for at the senior-high level in the following types of exercises:

1. Does Poe's analysis of fear in the human mind seem correct, judging from your own experience or from your other reading?
2. What in Section LIV of "In Memoriam" suggests that Tennyson was troubled by the new scientific doctrines derived from evolutionary theories? Is his conclusion on the matter hopeful or despairing?

## Critical Reading in Social Studies

Situations which give experiences in another facet of critical reading may be found in the content of social studies. Teachers in this area should capitalize upon these situations to help each child to become more mature in his ability to judge the validity of statements made in his textbooks and elsewhere.

## Judging Validity

At the prereading stage the child can be guided into judging the validity of information in situations such as the following:

1. After showing a filmstrip on "The Policeman," the teacher can initiate discussion of the actions of the lost children and the policeman in light of past experiences with a policeman. Does the local policeman help lost children find their parents? Did the policeman in this filmstrip act like a real policeman? Why or why not?
2. Have the child compare "Smokey the Bear" in the National Zoo with the one in the comics:
   Is Smokey a real character? Which Smokey is the real one? How do you know?

The child in the early grades can judge the validity of such a statement as: "On the Plains the Indians lived in teepees because there were no trees to make houses." Consulting other sources and discussing the statement with someone who has visited the Plains States can lead him to accept or reject the statement.

In later grades, the child who finds that the population figure in the text differs from the figure given at the end of the text and consults an encyclopedia, the latest almanac, and other sources is enabled to decide which figure to accept. He compares copyright dates, author's competence, and other pertinent information about the sources in arriving at his decision.

At this level, also, he can be taught to question validity—until he has consulted other sources—of such a statement as:

"The climate in summer in the Northern Hemisphere is warm. At the same time, the Southern Hemisphere is also warm."

The junior-high student can be encouraged to judge validity in situations such as the following:

1. "The winter of 1962-63 was one of the coldest seasons experienced on the East Coast."
   How many years are involved? Who made the statement? Is he an authority? What factors are involved in the concept "coldest"? (Lowest temperature for a week, a day, a month? Most precipitation, highest humidity, strongest winds?)
2. Is the Lincoln's *Gettysburg Address* that is usually found in social studies books the original? What did Lincoln say when he delivered the address? Who changed it? When? Why?

The student in the high school should be expected to make more advanced inquiry into the validation of social studies materials. The pupil who has read one writer's conclusion that "Integration of races alleviates racial tension," can be helped in questioning the validity of the statement by reading about the "race riot" at D. C. stadium in the fall. He can then be made aware that more than physical integration is necessary to remove dis-

773.

trust, hate, bias, prejudice, and misunderstanding.

He should be given many opportunities to question the validity of information until he has examined all of the available evidence—using his total experience, direct and vicarious—to arrive at a tentative conclusion.

At all levels the pupil needs experience in formulating questions that involve critical thinking. Too frequently, the teacher asks all the questions, formulates the generalizations, and asks the pupil to supply the answers. The teacher should provide assistance to the pupil in evaluating his questions and his answers.

## A Final Statement

The examples given above demonstrate the possibility in two content areas (literature and social studies) of cultivating the child's ability in three aspects of critical reading. Space does not permit outlining similar opportunities for the development of other facets of critical reading in each content area. It is hoped that the reader will discern possibilities from the foregoing for his area of specialization and will be encouraged to examine the content of his subject for opportunities that will permit continuous expansion of the student's critical reading abilities.

Realizing that qualitatively the child's thinking processes do not differ from those of an adult, we, as teachers of reading, can do no less than to provide opportunities at all levels for each child to have experiences which call for critical thinking.

247.

Vol. 10, 1965

# SEQUENCE IV
# COMPREHENSION IN THE CONTENT FIELDS

## A. PRIMARY LEVEL

### 1. Paving the Way . . .

DODD E. ROBERTS
University of Maine

TRADITIONALLY the idea of teaching reading in the content areas has been the responsibility of teachers at and above the middle grades. The contemporary literature in reading still reflects the feeling that it is the task of the fourth grade teacher to initiate what is herein called "content reading" instruction — in study skills; in such specialized skills as reading maps, globes, charts, graphs; in some facets of critical reading. Lillian Gray,[1] for example, writes: "When, in the *fourth grade* [italics mine], reading in the content fields is taken up in earnest, children should be so guided that they will enter upon a period of discovery and broadening horizons." Much of the literature reflects the idea that the fourth grader is for the first time faced with wide reading of materials in which there is little conscious control of vocabulary, little concern for the rate of presentation of concepts, little consideration of the types of reading skills needed by the learner. Social studies, arithmetic, science, and spelling texts are all cited as examples of materials demanding new and more sophisticated reading skills of their readers. When such materials are to be used and when readers are expected to acquire a great deal of factual information and knowledge from such sources, it certainly becomes one of the first duties of the intermediate grade teacher to provide the best possible instruction in those skills which will assist her pupils to become more proficient readers in the content area.

But does the traditional concept of initiating instruction in content reading at the intermediate grade level need to be re-examined? Is there not a rationale for suggesting that there are many content reading skills which younger children now need?

Many factors contribute to the "downward push" or the growing awareness that teachers simply cannot wait until fourth grade to introduce those reading skills which until recently have been considered the province of the teacher of the intermediate grades. A brief glance at some of these factors may serve to buttress the argument that the primary teacher must *begin* to assume the responsibility for teaching some content reading skills as part of the basic developmental reading program of the primary grades:

A. Increasing evidence that reading is seen by classroom teachers as well as by theorists to be a thinking process involving the learner, his experiences, his needs, the materials he reads, the purposes for which he reads, and the problems he has in reading-thinking.
B. The tendency on the part of teachers to accept the concept of individual needs and to recognize the responsibility of teaching in light of children's individual needs and interests.
C. Teacher recognition that readiness is a matter of preparation for any new type of reading task needed by the young reader.
D. Organizational schemes which encourage children to read widely materials of many types; e.g., individual reading, personalized reading, self-selection.
E. Tendency to lessen emphasis on *grade levels* and to increase emphasis on *skill levels* as criteria of achievement.
F. The publication of reading series with less control of vocabulary and with a greater range of content material than many which teachers have been using in recent years.
G. The publication of many trade books of a factual nature written at the primary level, books which introduce new concepts in vocabulary often outside the realm of the primary child's experience.

As teachers become aware of these and other factors and recognize the implica-

[1]Lillian Gray, *Teaching Children to Read.* Third edition. New York: The Ronald Press Company, 1963, p. 330.



775.

tions of their presence, they must begin to assume responsibility for integrating into primary language arts programs those content reading skills which their pupils need. Teachers need help in recognizing that some new skills must be taught, some "old" skills must be taught earlier, some common skills need re-emphasis in new contexts, et cetera.

Three principles upon which good instruction might be based involve an understanding of the significance of content reading, consideration of some caution in planning instruction, and awareness of content-reading skills needed by primary pupils.

*Develop an understanding of the nature of content reading and its significance to the pupil in the primary grades.* The teacher of the primary grades needs at her fingertips clear-cut descriptions of the nature of content reading. She needs evidence that general reading and content reading are not synonymous and that the primary pupils does need instruction in content reading skills. Finally, she needs assistance in seeing how she can integrate content-reading instruction into her developmental program.

*Consider some of the cautions the primary teacher must keep in mind as she plans instruction in content reading.* There are many in the literature, but perhaps four of them simply phrased are important for the primary teacher.

A. Do not assume that the teaching of a skill within the general reading program guarantees pupil's use of that skill within content reading.
B. Do not assume that the pupil's use of a skill within one content area guarantees its use within a second content area.
C. Be especially alert to the problems of teaching new and unfamiliar concepts through text reading.
D. Remember that the primary teacher's responsibility is to initiate, not to complete, the teaching of content reading skills.

*Develop an awareness of the skills the primary pupil needs in content reading.* If one is conscious of the significance of content reading skills, one needs only to look about him — at the material the youngster is reading—to see the possibilities of teaching skills in directly meaningful reading situations. Reflect on the list of factors mentioned above; look at two or three of the textbooks second and third graders are reading; some possibilities come quickly to mind.

A. Consider a page from a third-grade speller.[2]

1. Look at the directions. "Follow your study plan for the fourth day. Turn to page 4." Will the third grader need to re-read? Will he have to select from the weekly study plan those activities appropriate for the fourth day? Will he need direction in transferring the general directions on page 4 to the specific activities on this new page?
2. As he follows the directions on this page, will there be vocabulary problems with words and terms like *correctly, alphabetical order, consonant letter?*
3. Will his teacher avail herself of the opportunity to teach the skill of following written directions, of selecting appropriate activities from a written list, of transferring terms from basal reading to a pupil-directed spelling activity? Will she use the spelling activity not only as a device for building toward mastery of spelling, but also as an opportunity to introduce or reinforce two or three appropriate reading skills?

B. Study a second grade science experiment.[3] It follows a half dozen lessons on properties of magnets.

Pupils are given these directions:

EXPERIMENT

Put a small piece of wood in water.
Put a needle magnet on the wood.
The needle and the wood will turn and then stop.
Make a mark on the dish where the needle points.
Then turn the needle away and see what happens.
It comes back to the mark.
Try it again and again.
You will find that the needle points the same way every time.
A magnet needle points north.
A magnet needle that points north is called a compass.

[2]Richard Madden and others, *Sound and Sense in Spelling.* Teacher's edition. New York: Harcourt, Brace and World, Inc., 1964, p. 10.
[3]Herman Schneider and Nina Schneider, *Science for Here and Now.* Teacher's edition. Boston: D. C. Heath and Company, 1955, p. 160.

776.

Note that five sentences give directions, three sentences report results, two sentences state or define. Will pupils who are to be introduced to one of the ways in which man uses magnets need assistance in reading the directions for the conducting of this experiment? Will they need to re-read previous lessons in order to make a needle magnet? Will they stop at the end of the second sentence, watch to see what happens, check the accuracy of the third sentence? Will they use the reading that is done thus far as a basis upon which to continue the experiment? Does the teacher guiding this experiment have a chance to test the degree to which her pupils read between the lines, anticipate outcomes, recognize the difference between directions and statements? Does she give these pupils an opportunity to express opinions about the uses of needles which always point one way; that is, does she demonstrate the concept that the reading one does often leads to very interesting possibilities?

C. In one second grade social studies lesson, the teacher's edition of the text suggests: Why *should* we be glad there are policemen to protect us? Look at *each* picture and read the page to yourself. It further directs: Guide a discussion of the page emphasizing what child's relationship to policemen should be. The text describes the protective function of policemen, asks its readers to describe some ways in which policemen protect citizens and asks, "When should you ask a policeman for help?"[4]

Perhaps this lesson illustrates a point frequently mentioned in the literature, but too often ignored or minimized in the classroom. One of the very serious problems one has in assigning content reading at any level is the introduction to concepts *unfamiliar* to children. What does *protect* mean? How does the child relate these three pictures—of an officer stopping vehicular traffic for pedestrians, of an officer checking locked doors at night, of an officer writing an accident report with two drivers—to the concept, "Policemen protect us"? Can the teacher assume that one previous discussion of the concept of protection (in this text, the protection afforded citizens by the fire department) leaves the youngster ready to read silently a selection the thesis of which is that policemen protect us? Will the alert teacher include in her assignment some questions, some remarks which give her an opportunity to check youngsters' understandings of this concept before directing them to read this assignment and discussing with them this very important social studies idea?

Illustrations could go on *ad infinitum*. Perhaps this last point has been made: The teacher who is aware of pupil needs in content reading has many opportunities to develop helpful or necessary competencies at the primary level.

**Summary**

Certainly the issue of content reading is far more complex than the limited scope of this presentation would indicate. This writer's intent has been only to stimulate some thinking about the problems of teaching content reading within the primary grades and to suggest that primary teachers who attempt to meet the reading needs of youngsters in their classes will integrate content reading instruction into a developmental language arts program.

[4]Paul R. Hanna and Genevieve A. Hoyt, *In the Neighborhood*. Chicago: Scott, Foresman and Company, 1958, p. 88.

777.

248.

Vol. 10, 1965

90.

## 2. Literary Understandings in the Reading Program of the Primary Grades

SHELTON L. ROOT, JR.
Wayne State University

THE TOPIC of this paper seems more than a bit revealing of the situation that exists *vis-à-vis* literature for children and the primary grade curriculum. The topic is *Literary Understandings in the Reading Program of the Primary Grades.*

The topic, at the very least, implies two basic assumptions concerning primary children and literature. One, that literature is a part of the reading program. Two, that literary understandings should be developed in the primary grades. Let's look at these two assumptions.

First, to the assumption that literature is, indeed, a part of the reading program in the primary grades. But let me first explain what I mean by "reading program." I mean *all* of the reading that children do in the primary grades. All of it! I do not mean to accept the commonly held dichotomy of the *instructional* reading program and the *recreational* reading program. The first to provide teacher instruction in the mechanics of learning to read. The second to provide children some time in which to learn, pretty much on a catch-as-catch-can basis, that reading can be a rewarding experience.

I do not accept this dichotomy because, whether we like it or not, whether we are aware of it or not, in final analysis the curriculum achieves some kind of unity in the learner which, for all practical purposes, results from experience with *a* reading program. This despite the fact that we may think we are offering two programs—the instructional program and the recreational program.

I do not accept this dichotomy for yet another reason. Experience proves beyond any doubt that it results in such emphasis on the instructional program that the recreational program is virtually excluded. Such a program is schizophrenic in nearly all of its dimensions.

The designers of reading curricula emphasize instruction in the skills of reading mechanics. Then, reflecting what can only be guilt feelings, toss into the teacher's manual a few paragraphs concerning literature and recreational reading and say, "Of course, it's a good thing to encourage children to read for recreation."

Parenthetically, let me say, we need to get back to the original meaning of that word *recreation* before it lost its hyphen. The 1962 College Edition of *Webster's New World Dictionary* defines *recreate* as "to restore, refresh, create anew; . . . to put fresh life into; . . ."As regards the reading of literature, it does not necessarily mean just reading for fun. It means reading to create and re-create one's self.

Now, back to the schizophrenia. Most primary grade teachers, because of a multitude of pressures, devote huge chunks of the school day to direct instruction in the mechanics of reading. But they, too, feel more than a slight twinge of conscience concerning literature. So they decree, and sometimes without the blessings of the administration, an infrequent library period—if the school happens to be blessed with such a facility. If not, they proclaim a free-reading period.

Children, themselves, do not escape from this schizophrenia. When they have been fortunate enough to have teachers who made at least some time available for literature and when there has been something at hand worth while reading, the children develop a vague awareness that reading can be an intrinsically rewarding experience. But they must be confused by the fact that so little time during the school day is devoted to reaping the benefits which accrue from the efforts invested in mastering the mechanics.

Nor does the general public escape the

778.

disease. When its members come to us asking questions concerning the reading program, we respond by telling them of new alphabets, linguistic-based programs, typewriter programs, kinesthetic programs, kindergarten readiness programs, preschool programs, and soon it will be prenatal programs. In so doing, we dwell almost exclusively on the mechanics of teaching reading. If we think about it at all, we assume that everyone knows that one of the primary purposes, if not *the* primary purpose, of teaching reading is to make possible the reader's self *re*-creation. And this is the very same public which, while it trustingly accepts our every new program of reading instruction, decries the fact that much of our youth *never* read anything and that those who do rarely read anything "good."

To overcome this multiple-schizophrenia we must put literature squarely into the reading program. Literature, and instruction in things literary, can no longer be considered an adjunct of the reading program. Literature must be considered a central element in the total reading program—not just "lip-service" central, but "time-devoted" central.

Certainly, a large part of the time devoted to the reading program should be devoted to literature. And much of the money spent for reading materials should be spent on literature for children. As important as time and money are, they alone are not enough. We can no more afford to leave to chance children's learning the *why* of reading than we can leave to chance children's learning the *how* of reading. There are many aspects of the "literariness" of reading that need to find their beginnings in the early days of the primary years.

Before we go into some of them, let me mention what seems to me to be the only justifiable reason for *teaching* literature to children as opposed to just providing time for them to read. We should teach literature to young children for no other purpose than to help them become more sensitive to that literature and, hence, more appreciative of it. Although this statement may sound commonplace, its importance can hardly be emphasized enough. Overemphasis on the study of *how* literature does what it does accounts for too much disenchantment with literature on the parts of far too many junior and senior high school students.

Now for a look at some of the understandings that can help children to better appreciate their literature. Any reading program worthy of the name must be judged first on its ability to convince children that reading is a skill whose mastery pays off. And a large part of that pay off should come through the enjoyment of good books. This means that the very first literary understanding that children must have is that books have something worthwhile to offer.

For far too long, now, have we assumed that children had this when they came to school—either as a kind of God-given talent, or as one which they acquired by osmosis from whatever particular subculture they chose to be born into. Such simply never was the case and certainly is even less the case today. Children do not just automatically know that "reading can be fun." Indeed, often it is not.

I am sure that I am swimming against the current of most present-day programs of reading instructions. But the most important thing for us to do with large numbers of our children is to help them discover the rewards that books have to offer. This means using every device at our command—using them frequently, intensely, and tastefully.

The devices are well known: reading aloud and storytelling; using films, film strips, and recordings; and extending the literary experience through the various aesthetic media. We must be certain that children come to know, and come to know early in their school lives, that there are lots of good books just waiting to be read. This means literature must have its time in every school day and for every school child just as instruction in mechanics of reading has. It means, also, that we teachers must plan to put literature into a place of importance in the school day—leaving it neither for the last, exhausted moments of the school day, nor to those chosen few who have done all of their work. In short, it means a program planned to convince every child that books are for him. Such a program provides time to hear books, time to discuss books, time to sit quietly with books, time to extend reading experience

through various aesthetic media, and time to keep some reading experiences personal and private.

High on the list of literary skills which children need to master early if they are to enjoy literature is the ability to use the explicit statements made by an author to reach the implicit meaning which he intends. Children who are unable to do this can never become good, well-rounded readers. They are the ones who, if they read any fiction at all, read it purely at the plot level and seldom move beyond *Nancy Drew* and *The Rover Boys.*

Let me cite an example of the importance of this ability to understand the relation between explicit statement and implicit meaning. Maurice Sendak, in his Caldecott Medal winning book *Where the Wild Things Are* (Harper and Row, 1963), tells the perfectly wonderful story of Max, who through a misunderstanding with his mother, was called a "Wild Thing" and sent to bed without his supper. Once in his room, Max takes an imaginary voyage to a land populated with wild things and, after engaging in a "wild rumpus" with them "was lonely and wanted to be where someone loved him best of all." Sendak concludes his story with Max voyaging back "into the night of his very own room where he found his supper waiting for him and it was still hot."

Now, the child who does not get Sendak's implicit message (and more than a few don't) that mother brought the supper has missed the whole point of Sendak's book. For it is a story of rejection, escape, and reassuring acceptance.

Literature for children is filled with explicit statements such as these which must be taken to the author's implicit level before intended meaning emerges.

Literary cause and effect relationships need to be understood by young readers. The old question of *who* did *what* to *whom* and *why* bears continuing reexamination with children—particularly as their literature becomes more sophisticated. It is the employment of this skill that helps children anticipate coming events and which leads them on in their reading to see whether or not things do turn out in the foreshadowed manner.

Characterization and, when present, character development are elements with which primary grade children can become aware. Here, as in other literary elements, the child begins to learn and appreciate the craftsmanship of those who create his books, the craftsmanship of both author and illustrator.

It is in the picture-story books that ability to read picture clues is vitally important for comprehension rather than in the basal texts. And this at the primary level, perhaps uniquely so, is a literary skill to be developed.

All literary skills and understandings begin their developments in the primary grades. Those which I have mentioned seem to me to be among the most important to be dealt with at the conscious level. But the skills and understandings must be developed to help the reader grow in the enjoyment of literature. Our task is not to educate a generation of literary critics—rather, it is to educate a generation of literate readers.

780.

249.



useful three-step sequence for effective teaching of imaginative literature. To participate fully in any literary selection, a reader must first make an "imaginative entry." That is, he must be able to relate, to some degree, the experience described in the work to that which he himself has undergone. The "to some degree" is a vital factor in this first phase of understanding. The young reader does not have to have literally experienced that which occurs in the story he has read; he needs only to be able to call up experiences in the *general* area of the subject represented.

Obviously, then, works must be within the emotional range of the reader in order for him to have any chance of making such an entry. In the light of this, Burton feels that one of the teacher's important functions in promoting empathy between reader and work is to "select" for study those works which offer a legitimate chance for the student to use his experiences as a touchstone for imaginative entry.

Once an imaginative entry has been made, the reader's next concern, in Burton's eyes, is for the perception of meaning or central purpose of the work. This goal is most consistently and fully achieved by moving from particulars to universals, from the concrete "facts" of the work to the significance that they, taken as a whole, embody. Thus the process of moving toward realization of meaning is necessarily an inductive one. The finding of meaning in literature is a continuous process of predicting what is to come and then testing the validity of the prediction by relating it to what the reader finds as he progresses through the work.

The final stage of examination of literature for Burton is that of perception of artistic unity and significance. This perception, he hastens to add, is a level of realization reached by only a relatively small number of students. In other words, many may never participate aesthetically in the total impact of a writer's language. This contention, *I* hasten to add, has been well-corroborated in my own teaching experiences at the secondary level. And one of my greatest frustrations as an observer of literature instruction occurs

## 2. The Reading of Literature: Poetry as an Example

JOHN S. SIMMONS
Florida State University

AT THE OUTSET, let's clarify one or two presumptions. In my opinion the reading of literature is an ability which should be developed with students only *subsequently* in the English curriculum. In order that we make students competent to any degree at all to deal with literary selections *on their own,* we must be assured that two conditions are already present: (1) that certain basic reading skills have been assimilated by these youngsters and (2) that they have lived long enough to have accumulated a storehouse of experience to which they can relate the various literary selections they will be asked to read. It is contradictory to ask students who cannot read much of anything to read literature. Furthermore, literature can be enlightening when it sheds *new* light on something on which youngsters have already established some perspective.

Dwight Burton has suggested a highly

781

when a teacher turns to his students at the completion of all-class reading of a given work and asks them to comment on its aesthetic impact—questions such as "How did you like this poem?," or "How did the author's style impress you?"—these without first finding out if they know what went on in the work, where, and when it happened, and to whom! Students cannot savour verbal finesse until they have first dealt with the facts of a work and their relationships, expressed and implied.

Although I find that Burton's concept of inductive literature teaching is very close to my own, I would like to take his three-step process as a point of departure and suggest some ways in which a teacher of literature, using the *forms* of literature in a purposeful sequence, may develop better understanding. Notice that Burton has laid primary emphasis on what the reader must do. The teacher is, more than anything else, a catalyst of literary understanding, interpretation, appreciation. Burton's process would be related to *any* work of literature regardless of its genre. It is my contention that if we as teachers move from one form purposefully to another with our student, it will make the application of Burton's theory a good deal easier, both for teacher and student.

My opening contention in this matter of form is that teachers of literature should consider starting with works of longer prose fiction, that is, novels. My rationale for this contention grows from the feeling that we should pick the student up where he most probably *is*. First of all, longer prose fiction tells a story, and it should be needless to reiterate that the overwhelming majority of young people enjoy stories. Whether they are superior readers, most younger students are quite accustomed to the narrative, whether it appears in printed or in oral form.

To implement most effectively my suggestion of using novels in the early stages of literature instruction, the teacher should find those novels which are conventionally written. As I define it, a conventionally written novel follows a clear chronological order in its development. The action involved in such work is mostly of an outer nature; that is, physical activity predominates, and the reader is clearly aware of this fact. There are few flashbacks; those which are used are clearly identifiable, and the sequence of events is seldom interrupted for a long period of time. Characters are also developed without obscurity. Dialogue is regularly punctuated, and the thoughts of individuals are labeled as such.

There is no need to pursue, I feel, the notion of conventionality in longer works of prose fiction. But the novel does offer us one further advantage as an introductory form of literature. The development during the past thirty years of the well-written junior novel has provided a great *range* of materials for individualizing classroom instruction in the reading of literature. We all recognize the grim fact that not all readers at any grade level read with the same degree of proficiency. In the study of literature, the addition of the junior novel affords the teacher a valuable implement. Moreover, these works most often portray a protagonist in *adolescence*, moving through situations very close to the literal experience of younger or less mature readers. This facet of the junior novel makes imaginative entry possible for a large number of students. It also allows the teacher to choose well-written but easy-to-read selections for students who have trouble in just plain reading. He can use junior novels as a springboard for exploration of more complex works on more mature topics.

Flexibility is something for which we of the teaching gentry all crave. Equipped with junior novels, long but conventionally written novels on more adult topics (the works of Kipling, London, Twain, and countless others, can represent this type), and the kind of longer fictional works that we as college students manfully ploughed through, the teacher can work with students who are at several stages of development.

The short story offers a vehicle with which we can make an excellent transition in moving students from "easier" to more difficult literary forms. (Although, at this point I should like to interject that the term "easy" is a very slippery one when applied to the *reading*

782.

of literature—readability formulas don't tell us much of anything about the relative conceptual difficulty of most imaginative works.) While the short story is obviously still *fiction,* exemplary works often contain some special problems of which students will be largely unaware unless they are led to recognize and deal with them. The problem of reading the short story is not aided by the fact that there is considerably less adolescent fiction to be found in this abbreviated form. While there are undeniably some worthwhile collections of junior short stories available today, the great majority of shorter fictional works studied at the secondary level and widely anthologized for that purpose are quite adult and sophisticated. Thus the teacher will frequently find himself faced with the inescapable responsibility of dealing with short fictional works which present one or more significant structural difficulties.

Opening paragraphs in most short stories are crucial to the understanding of the work. With *much* less room to maneuver than his novelist counterpart, the writer of the short story must invest great significance in some relatively sparse and often trivial seeming detail. The student who is not on the lookout for these opening clues will almost invariably develop a confused or distorted idea of the direction in which the work is moving.

Time sequences are juggled about with abandon in modern short stories. Since the writer is typically presenting only a slice of life, he must often "play about with his clock" as E. M. Forster would say, in order to place in sharpest focus those details he wishes to emphasize. The result is often a series of abrupt transitions in scene, unexpected flashbacks, and puzzlingly underdeveloped situations. The student who is used to reading conventionally developed, longer fictional works may be jarred by these sharp turns and bumps in the road.

Further complications exist in short stories, particularly those written within the last fifty years. Freudian influences have led many writers to concern themselves increasingly with the exploitation of the inner nature of man and to devote a good deal of attention to the disturbed person's outlook on life. The result has been a great deal of experimentation with such stylistic devices as stream of consciousness, interior monologue, etc. Students who cannot follow such nuances will obviously have trouble grasping the contribution which certain characters have made to the story as a whole. When writers add conscious ambiguity to the statements, reflections, etc., of their characters, the untrained reader becomes further confused.

Anti-climactic endings add to the difficulty in interpreting significance in short fiction. The student who has read longer, conventionally written prose works becomes accustomed to the piling up of a welter of evidence leading to a decisive climax. He learns to anticipate such inexorably moving plots and thus may be irritated and disconcerted by the ending which offers no resolution or triumphal confrontation. Hemingway's *Killers* has often had this effect on my high school students. They are vexed by the utter futility evinced by the two main characters in the closing lines of the story.

In the light of all of these structural irregularities, the student who would become a careful and ultimately *satisfied* reader of well written short fiction must come to two major realizations. First, he must recognize that most short stories feature *compression* of idea. Much is said in a few words. Much is left for the reader to infer and relate to his own literal experience. A few lines in a short story can evolve a good deal of frequently wide ranging reaction, and ambiguity is always possible in interpretation. It is in the perception by the student of the significance of this compression of *idea and impression* that the reading of the short story can have value as a transitional activity.

Furthermore, because of compression, the great necessity for slow reading of this form must become gradually more evident to the student. He must move away from the casual inspection, the skimming which has probably characterized his reading of longer, conventionally structured novels. He must make meticulous note of *each* part, regardless of how seemingly insignificant, as it relates to the whole. When the impact of compressed meaning is fully sensed by the

783.

student of literature and when slow, careful reflective reading becomes part of his approach, he may then be ready to joust with poetry, the most difficult literary form for him to read.

For several reasons, poetry presents the greatest obstacle to the teacher who would lead his students to the effective reading of literature. One immediate reason is that poetry, unlike prose fiction or drama, does not necessarily tell a story. Much of the poetry which young people must read even as early as junior high school, develops an abstract idea or establishes a proposition concerning human experience. Some poetry is not even idea-centered; it merely creates an aesthetic impression. Consider the effect of Ezra Pound's famous imagistic work "In a Station of the Metro:"

*"The apparition of these faces in the crowd;*
*Petals on a wet, black bough."*

The student who is looking for a story in this work is certainly doomed to disappointment. Because the *ways* of so many poems are simply not narrative ones, readers who are unprepared for this fact may well be troubled by a search which goes unrewarded. If you recall, Burton has reminded us that perception of aesthetic impact occurs in only a small minority of readers. In the poem just quoted there isn't really much else to be gained.

A further complication, in the study of this form, is that there is not much range in its difficulty levels. There is little or no *transitional* poetry. While the junior novel which I described a few moments ago has flourished during the past thirty years, the junior poem is still looking for a champion. Most poetry with which students must deal is based on adult situations, represents abstract themes, and is highly complex of structure when compared to the conventionally written novel. Since there is no appreciable fund of adolescent poetry to augment such instruction, the teacher must come to terms, and realistically so, with the reading problems which the medium presents.

Probably the greatest difficulty to be found in the reading of poetry lies in the pronounced irregularity of its structure. By "irregularity" I mean that the form of the work is so vastly different from that which students are accustomed to reading that it continues to frustrate a large number of them. It has been my belief for many years, incidentally, that teenage boys do not really reject poetry because it is "fairy stuff" or "fruity;" this opinion, I feel, has become an institutionalized rationalization. The major reason boys retreat from poetry is that poetry is difficult to read, and so many secondary-level boys are inefficient readers. To go further, much of the reason that poetry has failed to interest and relate to young readers in general is that teachers have often emphasized the wrong elements, have compulsively continued to putter about among the metrical ornaments of verse while neglecting to sense and deal with the real reading problems which the form presents.

Of the legion reading difficulties inherent in the poetic form, I shall identify and illustrate only a few. What I would ask is that, as I catalog these difficulties, you continue to remember they are almost invariably occurring simultaneously in the work being studied. In other words, several aspects of the reading of a poem are troubling a student *at the same time.*

One obvious structural irregularity is that, in order to create impressions through rhythmical patterns, the appearance of lines of poetry differs sharply from those of prose fiction. In response to the charge that much of his poetry was difficult, the American poet, E. A. Robinson was once quoted as saying, "If they would only read my sentences!" Of course what Robinson has failed to mention was that many of the conventional characteristics of prose sentence structure are missing in poetry. Each poetic line is capitalized. Punctuation is irregular. Thoughts are often interrupted or ended *in medias res.* Lines are ended to accommodate rhyme rather than necessarily to facilitate syntactic flow. In fact, one of a young reader's major confusions in early bouts with poetry may stem from his wish to stay with the lilt of the poem rather than to pursue it primarily for *meaning.* Allow me to illustrate this by reading a few lines from a poem with which I know you are all familiar.

784.

*That's my last Duchess painted on the wall,*
*Looking as if she were alive. I call*
*That piece a wonder, Now: Fra Pandolf's hands*
*Worked busily a day, and there she stands.*
*Will't please you sit and look at her? I said*
*"Fra Pandolf" by design, for never read*
*Strangers like you that pictured countenance,*
*The depth and passion of its earnest glance,*
*But to myself they turned (since none puts by*
*The curtain I have drawn for you, but I)*
*And seemed as they would ask me, if they durst,*
*How such a glance came there; so, not the first*
*Are you to turn and ask thus.*

Now notice what happens when I take a slightly different tack in my reading:

(Read above passage again.)

When metrical analysis and identification of rhyme scheme become issues of paramount importance in the teaching of poetry to young people, this kind of distorted reading can easily result.

Word order in sentence structure is a vital factor in the transmission of meaning in the English language. The linguists tell us that somewhere between 75-80 per cent of the sentences produced in our language follow the subject-verb-object pattern. Young readers are most comfortable reading sentences written in this pattern. Therefore, the inversion of word order, the abrupt inclusion of single word and/or phrase modifiers, and other such machinations will create reading problems for the uninitiated. Notice in this next poem by Walt Whitman the time it takes the poet to get to the subject of his discourse and the distance he puts between his subject and his verb.

*Out of the cradle endlessly rocking,*
*Out of the mocking-bird's throat, the musical shuttle,*
*Out of the Ninth-month midnight,*
*Over the sterile sands and the fields beyond, where the child leaving his bed wander'd alone, bare-headed, barefoot,*
*Down from the shower'd halo,*
*Up from the mystic play of shadow twining and twisting as if they were alive,*
*Out from the patches of briers and blackberries,*
*From the memories of the bird that chanted to me,*
*From your memories sad brother, from the fitful risings and fallings I heard,*
*From under that yellow half-moon late-risen and swollen as if with tears,*
*From those beginning notes of yearning and love there in the mist,*
*From the thousand responses of my heart never to cease,*
*From the myriad thence-arous'd words,*
*From the word stronger and more delicious than any,*
*From such as now they start the scene revisiting,*
*As a flock, twittering, rising, or overhead passing,*
*Borne hither, ere all eludes me, hurriedly,*
*A man, yet by these tears a little boy again,*
*Throwing myself on the sand, confronting the waves,*
*I, chanter of pains and joys, uniter of here and hereafter,*
*Taking all hints to use them, but swiftly leaping beyond them,*
*A reminiscence sing.*

If we were to use a readability index which included the prepositional phrase factor to judge the level of difficulty of this poem, it would probably turn out to be pretty high.

As in the work I have just read, sentences in poetry are quite frequently of outrageous length. From early reading and writing experiences, we stress with our students the need for control of sentence length. Reasonable sentence length is an important feature of basic reading materials. Most conventionally written prose fiction (I shall exclude the works of such people as William Faulkner and Henry James from this category)

is exemplary of attention to control of length of syntactic expression. Not so in poetry. Here is the opening sentence, always a crucial one, from "Paradise Lost" which we all labored with back in the halcyon days of our youth.

*Of Man's first disobedience, and the fruit*
*Of that forbidden tree whose mortal taste*
*Brought death into the World, and all our woe,*
*With loss of Eden, till one greater Man*
*Restore us, and regain the blissful seat,*
*Sing, Heavenly Muse, that, on the secret top*
*Of Oreb, or of Sinai, didst inspire*
*That shepherd who first taught the chosen seed*
*In the beginning how the heavens and earth*
*Rose out of Chaos; or, if Sion hill*
*Delight thee more, and Siloa's brook that flowed*
*Fast by the oracle of God, I thence*
*Invoke they aid to my adventurous song,*
*That with no middle flight intends to soar*
*Above the Aonian mount, while it pursues*
*Things unattempted yet in prose or rime.*

Certainly there are other problems here as well (I ask you once again to remember that all the problems I mention are present simultaneously), but it must be conceded that it takes a trained and aware reader to sustain understanding of the main idea in the sentence I have just read.

Poets also utilize unusual words, dialect, and historical allusions throughout much of their work. The ease of understanding of much verse is further reduced by expressions which appear in crucial places and are of central importance to the poet's purpose. In the third stanza of "Sailing to Byzantium," William Butler Yeats says

*"O sages standing in God's holy fire*
*As in the gold mosaic of a wall*
*Come from the fire,* pern in a gyre
(accent mine)

If you don't know ancient Celtic you probably won't understand what the critics tell us is a most important phrase not only in this work but to all of Yeats' poetic thought. Dialect can be particularly troublesome because it seldom occurs here and there but usually permeates the entire selection. In case you have forgotten, here is a slice of a poem by Robert Burns.

*When chapman billies leave the street,*
*And drouthy neibors neibors meet;*
*As market days are wearing late,*
*And folk begin to tak the gate,*
*While we sit bousing at the nappy,*
*An' getting fou and unco happy,*
*We think na on the lang Scots miles,*
*The mosses, waters, slaps and stiles,*
*That lie between us and our hame,*
*Where sits out sulky, sullen dame,*
*Gathering her brows like gathering storm,*
*Nursing her wrath to keep it warm.*

Since the poem continues like this for several pages, and I have already demonstrated quite dramatically my ineptness with this stuff, I shall not proceed. It is important to remember, however, that in the study of English literature, dialect abounds in poetry written at least through the 17th century. *And this constitutes the first several months of study in an anthology-oriented senior high school course.* To deal effectively with the Burns poem, you must be able to handle the printed representation of late 18th century Scottish dialect.

Continual use of historical and mythological allusions is characteristic of renowned poets from all eras and of all nationalities. When such allusions are unclear to the student, he often fails to perceive both the idea that the poet is trying to communicate and the force with which it is conveyed. Here are the opening stanzas of Matthew Arnold's "Dover Beach."

*The sea is calm tonight,*
*The tide is full, the moon lies fair*
*Upon the straits;—on the French coast the light*
*Gleams and is gone; the cliffs of England stand,*
*Glimmering and vast, out in the*

786.

*tranquil bay.*
*Come to the window, sweet is the night-air!*
*Only, from the long line of spray*
*Where the sea meets the moon-blanched land,*
*Listen! you hear the grating roar*
*Of pebbles which the waves draw back, and fling,*
*At their return, up the high strand,*
*Begin and cease, and then again begin,*
*With tremulous cadence slow, and bring*
*The eternal note of sadness in.*
*Sophocles long ago*
*Heard it on the Aegean, and it brought*
*into his mind the turbid ebb and flow*
*Of human misery; we*
*Find also in the sound a thought,*
*Hearing it by this distant northern sea.*

Notice that the first stanza is straight, relatively clear description. Slow careful reading should be enough to comprehend both the situation and to infer the *mood*. Arnold, however, sees fit, at the beginning of the stanza immediately following, to allude to a major tragedian from classical antiquity. Thus, if the student doesn't know who Sophocles was and, more important, what his religious beliefs were, that vitally important allusion will confuse rather than clarify. And don't forget, it happens that there is only one such allusion in the poem I just read from. Where would we be in treating "The Waste Land" if we didn't know all truth about Eastern and Western culture through the ages?

Logically, we can next turn to the whole matter of figurative language in poetry which has always presented great obstacles to understanding for all but the most sophisticated of readers. Certainly one of the main problems in reading this form is that poets juxtapose unusual objects and ideas with great frequency. Eliot's comparing of an evening sky with an etherized patient in "The Love Song of J. Alfred Prufrock" is probably by now one of the truly classic examples of this. Whenever meaning is to be conveyed by allusion, a potential problem in communication exists. In setting up his association, the writer hopes that by comparing something less familiar (his main object or idea) with something *more* familiar to the reader, that the former will then become more easily perceived. The real problem exists in the fact that the reader (and particularly the *young* reader) may not be as familiar with the part of the allusion which the writer hoped him to be. Thus, if the reader cannot conjure up a lucid and complete image of an etherized patient, then Eliot's comparison is done for in this instance, and the poet has confused where he hoped to clarify.

Much can be done, I would contend, in the analytical teaching of figurative language to help less mature readers with problems in understanding such as I have just described. If we would teach *metaphor* for what it is, a basic and widespread means of conveying information and ideas, then our students would probably have a better chance to work with it successfully when it occurs in poetry. As S. I. Hayakawa has been saying for years, metaphor is a fundamental component of our language. In everyday speech we juxtapose the unusual for clarification, emphasis, variety, humor. We say, "I'm dying to meet him," or "This box weighs a ton," or "They're in another world." Too much time, however, is spent by teachers in identifying terms such as simile, metaphor, and personification purely as ornaments of poetry. Students memorize definitions for these terms, then sleuth about for them in the works they read. If these same youngsters were shown the omnipresence of metaphor in *their* language and the relationship of the figurative which occurs in everyday discourse to that found in the poetic work, they would probably understand a greater number of the allusions in selections they are assigned to read.

One thing is sure; we must teach the significant place which metaphor occupies in the search for meaning in poetry. There is virtually no poetic language which is totally devoid of the figurative. It is a chief device by which a poet compresses meaning as he crowds a good deal of thought provoking allusion into a superficially simple figure.

787.

As time closes in and coughs when I would expound, I wish to mention one final feature, found in much verse, that if overlooked by the reader will most certainly weaken the impact of the work on him. Most writers of poetry quite often employ single words and patterns of words for the purpose of evoking emotional reaction largely through tonal effects of these words and patterns. Here is a short poem, "Dead Boy," by John Crowe Ransom in which, I believe, we have an example of such a device.

*The little cousin is dead, by foul subtraction,*
*A green bough from Virginia's aged tree,*
*And none of the county kin like the transaction*
*Nor some of the world of outer dark, like me.*
*A boy not beautiful, nor good, nor clever,*
*A black cloud full of storms too hot for keeping,*
*A sword beneath his mother's heart —yet never*
*Woman bewept her babe as this is weeping.*
*A pig with a pasty face, so I had said.*
*Squealing for cookies, kinned by pure pretense*
*With a noble house. But the little man quite dead,*
*I can see the forebears' antique lineaments.*
*The elder men have strode by the box of death*
*To the wide flag porch, and muttering low send round*
*The bruit of the day. O friendly waste of breath!*
*Their hearts are hurt with a deep dynastic wound.*
*He was pale and little, the foolish neighbors say;*
*The first-fruits, saith the Preacher, the Lord hath taken;*
*But this was the old tree's late branch wrenched away,*
*Grieving the sapless limbs, the shorn and shaken.*

If the reader does not respond to the grating, rasping sound made by "old tree's late branch wrenched away" in the next to last line of the final stanza and the quiet closing provided by the sibilants "s" and "sh" in the final line, then, in my opinion, he has missed something. But, it must be remembered that this kind of appreciative reaction may not come to large numbers of students. As teachers, we may help our students through an inductive approach to realize the significance of such juxtaposition for themselves, but we cannot and should not teach them by edict. It goes without saying that effective oral reading by the teacher could be a great influence in areas of poetic consideration such as this.

During this discussion I have tried to point out the pitfalls apparent in the teaching of reading of literature in general and of poetry in particular. I hope that by some of my remarks, I have indicated means of dealing with these difficulties. These things we know: that poetry is "hard" in part, at least, because it has a narrow range of difficulty; *i.e.,* most of it is tough to comprehend; further, that meaning in poetry is greatly compressed, thus calling for slow reading, frequent rereading, and much associative activity; also, that poetry is most irregular in structure, that it *looks* different from conventionally printed matter thereby forcing the reader frequently to reconstruct it mentally into "ordinary" dress in order to gain its meaning. And that, finally, the several aspects of difficulty in poetry are usually functioning at the same time, thus adding to the complexity of our teaching task. Maybe, by applying Burton's three-step process of induction, we can help puzzled and discontent students with heretofore baffling works. Maybe by moving systematically from the more conventional to increasingly irregular literary structures, we can assist the student in making the most of his *strengths* in reading. Maybe by using both of these plus a little individual attention, we can lead students to the point where they will say, "Hey, I like this one," and really mean it.

788.

250.

Vol. 5, 1960

5. Research 108.

# a. Developments in Reading Abilities Evaluation

E. Elona Sochor

The need for developments in testing for appraising and investigating reading abilities is constantly being mentioned in the literature. This paper selects and summarizes aspects of two different attempts at test construction and reports some of the results obtained.

[1]Ernest Horn, "Phonics and Spelling," *Journal of Education*, CXXXVI, May 1954, pp. 233-5, 246.



Both dealt with reading in content areas. The first represents two companion studies, one in social studies and one in science, conducted on the same population of 513 fifth graders. The problem investigated was the comparison of literal reading and selected critical reading abilities. The second represents an individual-student approach to evaluating reading achievement in science materials with a total population of 150 pupils in grades four, five, and six. All three studies included test validation.

The approach to constructing the test materials was similar in the three studies. Selections were written about topics and concepts on which there was agreement. Assigned grade levels, vocabulary, and language complexity were among the factors controlled. The proposed selections and questions were checked by readability formulae and against word lists like the Thorndike. After initial completion, the tests were submitted to reading and subject matter specialists for evaluation and revised accordingly. Finally, a preliminary study with pupils at appropriate grade levels was conducted for the evaluation of all test materials and procedures.

Each of the studies had its own test. The tests designed to investigate literal and critical reading, *The Intermediate Reading Test: Social Studies* and *The Intermediate Reading Test: Science*, included three selections on readability levels-four, five, and six. Each selection was followed by ten literal reading questions of a five-response, multiple-choice variety. Following these, there were thirteen (social studies) or fourteen (science) questions each of which attempted to measure a particular critical reading ability. Twelve of the abilities were common to both content areas. These tests were administered in group situations.

The test used in the third study, *The Diagnostic Reading Inventory in Science*, was designed to appraise the reading achievement of individual pupils in the fourth, fifth, and sixth grades in science materials by applying certain criteria to pupil performance. The two forms of the test ranged in difficulty from level two through nine, with a selection at each level in each form. The number of questions per selection varied, from seven to thirteen, depending on the length and nature of the selection. For administration, the selections were sub-divided; each section was preceded by an oral orientation to the topic and a "purpose" question. The silent reading was followed by comprehension questions appraising a variety of reading abilities and skills.

Statistical treatment for the two approaches, of necessity, varied.

## The First Approach

Maney[1] and Sochor[2] first appraised the reliability of their literal and critical reading sub-tests. The results indicated sufficient reliability for the further investigation of total-group data: Social Studies Literal, $r=.87$; Science Literal, $r=.89$; Social Studies Critical, $r=70$; and Science Critical, $r=.79$.

The reliability of the individual test items was then estimated with two measures. All thirty literal reading questions in both tests were highly discriminatory and significant (beyond the one per cent level of confidence). The critical reading questions were less stable, as might be expected. Twenty-eight of the social studies critical reading questions (out of thirty-nine) were highly significant and one approached significance. Thirty-five of the science questions (out of forty-two) were highly reliable on one of the statistical measures with one approaching significance. The reliability of the test items was also considered sufficient for group treatment of data.

Further information on the nature of these new tests was obtained by correlating each section (1) with the *Pintner General Ability Test*, Verbal Series, Intermediate, Form A, (2) with the *Gates Reading Survey*, Level of Comprehension, Form I, (3) with each other, and (4) each test item with the total literal reading score.

[1]Ethel S. Maney, *Literal and Critical Reading in Science*. Doctoral Dissertation. Philadelphia: Temple University, 1952.

[2]E. Elona Sochor, *Literal and Critical Reading in Social Studies*. Doctoral Dissertation. Philadelphia: Temple University, 1952.

789.

The results indicated that intelligence correlated with social studies literal reading was substantially (.72) and about the same as with critical reading (.69). A greater discrepancy between literal and critical reading was indicated when the standardized reading test was correlated with social studies literal reading (.76) and critical reading (.64). Literal and critical reading in social studies were substantially related (.61) to each other. Science literal reading correlated .75 with intelligence; critical reading, .67 with intelligence. General reading correlated highly (.75) with science literal reading and substantially (.60) with critical reading. Literal and critical reading in science, as in social studies, were substantially related (.67).

Space prohibits presenting individual findings on each critical reading ability included in the tests. The "estimated" product-moment correlations indicated that the median correlation of these abilities was .25 in both social studies and science materials.

The difference in relationship between literal and critical reading becomes clearer when the median correlations of literal reading items in social studies, r=.60, and in science, r=63, are compared with the above.

Point Biserial correlations between the total literal reading score and each critical reading item indicated relationships that were low or negligible for both content areas. The thirty-nine social studies correlations had a median of .13. When those items which failed to show a significant presence of relationship (chi square) were eliminated, the median rose to .23, a low relationship. In science the results were similar. The median correlation of all forty-two items was .23. Deleting the twelve non-significant items in science did not alter the median correlation.

Thus it appeared that each critical reading item did measure an ability (or abilities) substantially different from those involved in the literal interpretation of both social studies and science materials.

The critical reading abilities that were significantly stable in both tests were: (1) vocabulary as used in the selections; (2) semantic variations of vocabulary; (3) identifying the central theme, and (4) the most important idea. In the science test, others were reliable: (1) identifying the generalization, and (2) the extraneous idea; and (3) analogy. These were all probably reliable in social studies. Others probably reliable in both tests were: (1) inferring, (2) sequence, (3) antecedents, and (4) problem solving.

Further information on the comparative achievement of the pupils on the literal and critical sections of the tests were obtained by examining the distributions of raw scores. The mean on the Social Studies Literal Reading Section (20.58) represented 70 percent of the possible thirty points; the mean for critical reading (12.47) represented only 31 percent of the possible thirty-nine points. Similar data were found in science: the literal reading mean (17.65) was 60 percent of a total thirty points; the critical reading mean (12.47), only 31 percent. A discrepancy is quite obvious between the two types of reading achievement. If the test and the individual test items were valid, as statistical treatment indicated (for group treatment of data), the population in this study was deficient in critical reading comprehension. The fact that Gallen[3] indicated the same for his findings with science materials reinforces the conclusion presented many times: there is a need to develop comprehension abilities in social studies and science other than the factual interpretation of the material read.

## The Second Approach

Statistical treatment of the Gallen test, *The Diagnostic Reading Inventory in Science*, differed considerably from the two tests already discussed. It was an individually administered test with two forms. In addition to the raw scores derived from comprehension questions, there were data on the passing or failing by each student on four achievement levels. Observations of pupil performance in the Normative Data gave further evidence on the relative difficulty of the selections.

The application of achievement levels,

[3]Albert A. Gallen, *A Diagnostic Reading Inventory for the Determination of Reading Achievement in Science Materials for Intermediate Grade Levels.* Doctoral Dissertation. Philadelphia: Temple University, 1959.

790.

mentioned above, is a distinctive feature of the study. Criteria were set up to estimate whether (1) the subject could read the selection independently, (2) he could read it with teacher guidance (instructional), (3) the selection was posing too many difficulties for instruction (pre-frustration), or (4) the subject was completely frustrated. Each student's performance was evaluated on each selection read.

Test reliability was appraised in several ways. The differences between the mean raw scores of the two selections at difficulty levels two through six were not significant with fourth, fifth, or sixth graders. The differences between the percentages of pupils passing and failing selections as determined by achievement levels at the same and succeeding reading levels (two through nine) were computed for fourth, fifth, and sixth graders separately. Results indicated no statistically significant differences between the two selections at any one level, and generally no difference between one level and the next higher level; beyond that point, the differences were significant. Study of the Normative Data, which included those students dropped because of frustration, did indicate the selections seemed to be progressively more difficult.

The comprehension raw scores from the two selections at difficulty levels two through six were correlated. The thirteen resulting correlations ranged from .55 to .81 with a median of .74. All were significant. Tetrachoric correlations was applied to each of the achievement levels and the two selections at reading levels two through eight. The fifty-one correlations ranged from .70 to .95 with a median of .95.

A last estimate of reliability was made by correlating total raw scores for Form A versus Form B. The correlation with fourth graders was .98, with fifth and sixth graders, .99.

With reliability of the new instrument established, the investigator proceeded to compare it with several other measures. He began with the four achievement levels obtained with his test and the *California Reading Test*, Elementary, Form AA. For Independent Level Reading Achievement, the tetrachoric median was .42; the Instructional Level median was .78; the Pre-Frustration Level, .80; and the Frustration Level, —.16. Two of the achievement levels are definitely related to a greater degree to the standardized reading test scores.

When the science test raw score on Forms A and B separately and combined were compared with teachers' grades in reading, the correlations were no higher than .78. Correlations using teacher judgment were lower, the highest being .65. Comparing the science test with the level of the book being used for reading instruction revealed generally somewhat higher relationships with three correlations being .78.

Finally, correlation was used to estimate the degree of relationship between the new test and intelligence as measured by the *California Short Form of Mental Maturity,* Elementary, Form S. Form A and B correlations ranged from .68 to .75; combined A and B results indicated a .63 correlation for the fourth graders, a .75 for the fifth graders, and a .70 for the sixth graders.

The Normative Data revealed the limited ability of intermediate-grade pupils in reading science materials. Only four (out of fifty) fourth graders could read independently one of the selections at the third level. Only six fifth graders (out of fifty) could do so at the fourth level, and no sixth grader could at the fifth level of difficulty.

Instructionally, the results were similar. Fifteen fourth graders met the criteria for instructional level on at least one selection in fourth grade materials, twenty fifth graders succeeded with fifth level selections, and thirteen sixth graders did so at their grade level. More than half of the students were not ready for instructional science materials at their respective grade levels; in general, they were one or two reading levels below.

## Conclusion

Results on all the above measures are encouraging in regard to new test construction. All depart from the usual in their evaluation of reading abilities, yet hold



up statistically. What they indicate would be expected from other investigations. Further research with these tests and others is indicated and needed.

791.

251.
Vol. 10, 1965
72.

## B. UPPER ELEMENTARY LEVEL

### 1. Sequential Skills of a Literature Program

EVELYN S. THOMPSON
University of Houston

THE MAJOR purpose for teaching children to read is to help them become readers who turn to literature for information, inspiration, and enjoyment.

In a recent college bulletin, Francis Chase spoke of "the higher illiteracy" in America, deploring the fact that "reading is not an invitation to reflective thought." In contrast, a good reader asks himself three questions. "What did the author say?" "What did he mean by what he said?" "What does his message mean to me?" Too frequently, the reader is satisfied with an answer only to the first question.

The high levels of mental activity necessary to answer these questions call for reading as a thinking process. Reading instruction must lead to the development of skill in critical and creative thinking. Long ago Ralph Waldo Emerson reminded us that, "One must be an inventor to read well."



The reader must of necessity answer the first question before he can proceed to the higher levels of the other two. He will begin by using elementary skills which lead him to the meanings of words, sentences, and paragraphs. He will establish relationships between these meanings and will emerge with an idea supported by details. He can say, with some satisfaction, "This is what the author said." If he is a critical reader, he will postpone his moment of satisfaction until he has verified the author's statements in relation to accuracy, bias, fact or opinion.

Reading specialists agree that the level of creative reading is the supreme test of a skillful reader. Here the reader must establish a new order of relationships involving his past feelings and experiences, his knowledge and beliefs, in order to respond creatively. A new pattern of advanced and complicated skills is needed to answer the last two questions. He must create meaning: What the author implied but did not say and what he, the reader, can glean from it.

#### The Author-Reader Partnership

Christopher Morley once said, "The only real purpose of a book is to trap the reader into doing his own thinking." Let us consider briefly the development of a story for children. Janet Sebring Lowrey told this writer that she begins with an ideal (a theme), then she decides upon the characters, setting, and action which she can use to develop her theme, and the writing of the story gets under way. This seems to be a common practice among responsible authors.

The author of a book does not state, in one-two-three order, points he wants his reader to use in understanding his message. He is far more subtle in his approach to the reader's mind. He challenges him to the utmost by arousing vivid imagery and stimulating the imagination. Oftentimes, it is not what the author says; rather, it is what he does not say that leads the reader to the idea he wishes to convey. He scatters clues along the way, and the reading of the story literally becomes a delightful treasure hunt. Thus the reader becomes a partner in the act of communication. John Ciardi defines this experience, saying:

> I am thinking of reading as that process of getting yourself in touch with specimen experiences of the human race. The great thing here is *as if; as if* it happened to you. The process is one of empathy.[1]

#### Thinking Skills Are Essential

The abilities necessary to read at this level require thorough mastery of fundamental reading and thinking skills, plus interest, curiosity, and imagination.

David Russell declares that "scientific studies of children's thinking support the view that critical, creative reading is possible at all levels of the elementary school."[2] Reading specialists agree with Russell when he continues:

> The elementary school program must include specific activities leading toward good habits of thought and providing for the gradual development of thinking ability at all stages of development.[3]

Research has not revealed any substantial evidence to support a sequential order for the development of comprehension and interpretation abilities. We do know something about the types of thinking we can expect from children of different age levels. However, general maturation, training and experience play an important role in the child's mental development. Constance McCullough summarized Russell's report on children's thinking thus:

> In intellectual development the child is increasingly able to understand cause-effect relationships, to form generalizations, and to think logically. He makes amazingly clear distinction between fact and fancy. When problems are within his experience, his thinking appears to be like that of an adult.[4]

#### The Teacher's Role

Thoughtful educators stress the teach-

[1]John Ciardi, "The Well-Read Man," in Mazurkiewicz, Albert J. (ed), *New Perspectives in Reading Instruction*. New York: Pitman Publishing Co., 1964, p. 87.
[2]David H. Russell, *Children Learn to Read*. Boston: Ginn and Company, 1961, p. 465.
[3]*Ibid.*, p. 468.
[4]Nelson B. Henry, (ed.), *Development In and Through Reading*, 60th Yearbook, National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1961, p. 288.

792.

er's role in providing opportunities for maximum release of these emerging abilities. The December 1961, issue of *The Reading Teacher* contains several thought-provoking discussions of the value of planned instruction at each level in the elementary school. Gainsburg (pages 185-192) says:

> A dependence on the magic of the books themselves is inadequate to teach children the subtle mental processes involved in creative reading and in the finer levels of appreciation.

In the same issue of *The Reading Teacher,* Russell urges teachers to "penetrate into new territory," a venture "most rewarding in imaginative literature."

Whether the teacher is following an individualized reading plan or a basal reader approach makes no difference. Children's books and basal readers which include selections from children's books are rich in passages that can be used to lead the child-reader to employ the thinking skills he must master.

Books like *Charlotte's Web, Pinocchio, The Apple and the Arrow, A Tree for Peter, Winter Danger, Island of the Blue Dolphins, Secret of the Samurai Sword, The Supreme Court,* and *The Presidency* contain strong context clues, figurative expressions, ideas to compare and contrast, vivid characterization and descriptions, and clues to implied meanings.

What happens in the classroom rests with the teacher. First, she must know the books children are reading and be skillful in locating expressions and passages she can use to develop creative reading skills. Also, she must know how to raise questions or to make comments that guide the child's mind into the appropriate thinking activity. In addition, she must be able to plan and carry on discussion periods.

Finally, the teacher must know the levels of thinking ability the children have reached. Growth in these complex mental processes follows a design similar to the coils of a common bed-spring, narrow at the bottom, gradually moving upward and outward in spiral fashion.

Good teaching means good guidance of learning. The teacher must be ready to encourage curiosity, which has been called "free-wheeling intelligence." She must lead children to look for ideas, not "right" answers. She must be ever ready to help children stretch their minds and abilities.

The secret in determining sequence lies in recognizing the child's readiness to try skills or a pattern of skills in more difficult material, reaching for a more mature grasp of ideas.

Perhaps, when this is done, American schools will make Francis Chase's vision of the school of tomorrow a reality:

> A new image of the school is emerging . . . The aims of the school will be more sharply defined and will emphasize cultivation of the powers to reflect upon ideas . . . and to enter as fully as possible into the highest achievements and aspirations of mankind.[5]

[5] *Education Looks Ahead,* a symposium. Chicago: Scott, Foresman and Company, 1959.

793.

252.



Vol.9, 64

34.

## 3. Teaching Reading Skills in the Content Fields — The Art of Questioning

HELEN WARDEBERG

READING SKILLS can be developed and improved through the skillful use of questions, both before and after reading is done. The importance of developing vocabulary and concepts necessary to read a piece of printed material has been well established. The backgrounds and experiences pupils bring to the content fields are frequently overlooked. For instance, the culturally advantaged child in today's society often has high verbal facility, and talks easily and glibly. Skillful questioning is needed to identify the level of real understanding such a youngster has, the precision of his concepts, the value of his experiences as shared with others in the class.

On the other hand, the disadvantaged child may not be able to contribute this way. But he, too, has experiences! Sometimes he has a practical knowhow; sometimes personal knowledge of how it feels to be hungry, cold, abandoned! He may not have the appropriate "school" terms to talk about it, but his experiences can be of great value to others. Children of today have vocabulary, knowledge, concepts that would have been impossible in an earlier time. Our questions should be phrased to explore with pupils experiences that are relevant to the material, to identify and make more precise the terms that will be used, and to set meaningful realistic purposes that will personally involve the reader.

Questions also direct pupils to think about what is read. Thinking does not take place automatically; questions can lead our pupils to be better thinkers and thus better readers. Professor R. H. Ennis of Cornell is doing exciting research in critical thinking, defined as the "correct assessing of statements."[1] He states that a critical thinker is characterized by proficiency in judging such things as whether a statement follows from the premises, something is an assumption, an observation statement is reliable, a simple generalization, a hypothesis or a theory is warranted, a statement is overvague or overspecific, and so on. Professor Ennis does not include judging of value statements, or treat creative and other types of thinking, but he recognizes these are important and probably cannot in practice be separated.

While critical thinking is rather universally considered to be a good thing, we have been handicapped by a lack of any really sound delineation of the specific aspects of the critical thinking process. Evidence so far indicates that we can indeed teach the process of critical thinking and that probably children are capable of critical thinking at early ages. Even at this stage in Professor Ennis' research, we can get some leads for formulating questions that may develop this critical thinking power. The examples such as he cites will help us to formulate questions within the criteria he has identified for judging statements, adapted to the maturity level and to the subject matter. If indeed the process can be taught, then the use of skillfully devised questions based on reading and on listening will be an increasingly important technique.

One other guideline to effective questioning is the need to help students to understand the basic nature and structure of the various disciplines. For example, in history, one is not as concerned with the questions of "who, when, where," as with the question of "why." If our questions lead pupils to develop the concept or structure of history as a compendium of names and dates, then we have not practiced the art of questioning true to the nature of the discipline of history. Similar examples can be derived from geography, science, economics, and so on.

To summarize, then, the art of questioning to improve reading skills includes attention to at least these qualities: 1. Questions that relate new ideas to the child's experiential background and personal involvement. 2. Questions that develop critical thinking and the correct assessing of statements. 3. Questions that integrate the structure of the discipline in such a way that future learnings as well as past experiences can be encompassed in the structure.

[1]Robert H. Ennis. "A Definition of Critical Thinking," *The Reading Teacher*, 17 (May, 1964).

794.

253.

# PART II

## Implementing the Changing Concepts of Reading Instruction

### 1. In the Primary Grades

#### *a. Changing Concepts of Reading Instruction in the Content Areas*

GERTRUDE WHIPPLE

CONSTANCE McCullough has stressed that "the responsibility for reading growth should not be left to one period a day or to one teacher, but carried all through the day, in all subjects at all levels." The teacher in the various curriculum areas is responsible for the development of reading ability. For reading is basic to learning in these areas, even at the primary level where many nonreading experiences must be provided. A continuing interest in reading in a given area is one of the chief objectives of instruction. Thus our problem is: How can this view be implemented in arithmetic, science, and social studies in the primary-grade grades? Of the numerous concepts Dr. McCullough has presented, I shall discuss five in the time at my disposal.

**Building Background**

The first concept is: One must bring a background of concept-building to his reading if he is to understand it.

We cannot assume that children have such a background at the time they enter the first grade. As Gates and Jennings[1] point out, many children come from homes in which neither books nor complex ideas are of much importance. Even children from favored homes may lack background because they are unobservant. We must provide the needed experience in our classrooms.

In arithmetic an experiential background should be built up as part of the preparation for interpreting and solving story problems. Let us consider an example of how this can be done in a unit on stores.

In preparation for reading problems relating to a store, children may well construct and stock their own store, work in it as clerks, visit nearby stores to check prices, keep records of sales, and note changes in the prices of fresh fruits and vegetables as the seasons change. Such experiences will introduce them to ideas of supply and demand. These experiences will also help to develop the idea that the purchasing power of a dollar varies from time to time.

From the direct experiences, the teacher may well proceed to verbal problems which he presents orally. Since reading will not be involved, the children can give full attention to the problem situation. They can utilize their own past experiences in interpreting it. Thus the task will be comparatively easy, and the children will enjoy attempting to solve the problems.

After much experience with orally presented problems, the children are ready for written problems. Only the reading is new because all the terms have been introduced and used; even the quantitative situations are familiar because of the direct experiences given earlier. Under such conditions most children can be expected to succeed.

There is another advantage in gradually building language and experience before turning our pupils to books. It is the advantage of good motivation. According to Gates and Jennings,[2] such procedures cultivate in the child the "need to know." The teacher "lights a fire in his mind" using his knowledge of the "kindling points of interest." As motivators also, we are beginning at the child's level, insuring his success, and working to prevent read-

[1]Arthur I. Gates and Frank G. Jennings, "The Role of Motivation." *Development In And Through Reading*, The Sixtieth Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1961, p. 121.

[2]*Op. cit.*, p. 122-23.



795.

ing from degenerating into a meaningless game, chore, or mere busywork.

**Flexible Grouping**

A second concept is: "We have passed from whole-class instruction, through individual instruction, through group instruction, to the realization that each of these is good for something but that no one of them is good for everything."

Let us illustrate this concept of good grouping by reference to a third-grade class studying the farm in social studies. Through this unit the teacher hopes to develop an initial understanding of how we get our food.

Because the teacher regards his classroom as a learning laboratory, he arranges a stimulating environment with attractive pictures of farm life, a library corner filled with pictures and storybooks about farms, and a table of exhibits which includes toy trucks transporting produce, wooden farm animals, and a simple farm layout showing the fields and farm buildings.

At first the teacher works with the entire class. She organizes such activities as taking a trip to see a near-by farm, sharing related experiences, examining and explaining the classroom exhibits, enjoying a variety of audio-visual aids, and listening to farm stories that are read aloud. Teacher-pupil planning for the unit grows naturally out of this initiation.

Already the children have begun individual reading of children's literature on the farm. They have exchanged ideas in discussion periods about their favorite books. Since new books have been brought in by the teacher, the librarian, and the children themselves, even the most capable reader finds something new of interest to him.

Now the children are sorted into two or three groups on the basis of reading ability. At first the slowest group is helped to develop experience stories on such topics as herding cows, milking cows, gathering eggs, and the various farm buildings. Later they will read the simplest available material on these subjects. Another group concentrates on pictures and books relating to the dairy farm—separating milk and cream, making butter, hauling milk to the creamery in trucks, and buying and selling milk. Still another group reads books and pamphlets on plowing and preparing fields to grow crops, seeding the field, irrigating it, and harvesting the crops.

In such group reading, the guidelines for all good reading instruction are observed. The teacher's procedure is consistent with the ways in which he gives instruction during the reading period. He makes sure that the children are prepared to understand the particular reading material that is to be used. For this purpose, he helps them to recall related experiences, he presents the new concepts and ideas in advance of the reading so that the children will not meet undue difficulties, and he introduces new words and key phrases. In addition, he makes sure that all the children concerned have a clear purpose for reading.

As in the reading period, the teacher helps the children to interpret what they have read. He tries to make their reading experiences as vivid as possible. He uses pictures and encourages the children to note details of things mentioned in the text. He asks questions to help the children draw conclusions. Through discussion, summaries, and the drawing of pictures and diagrams, he leads the children to organize the ideas they have gained through reading.

On still another occasion, the grouping is done on the basis of interests. For instance, the teacher encourages the children to choose groups for dramatic play, which will add reality to the unit. Some choose to play as farm workers, feeding and watering animals, cleaning pens, repairing the barn, and loading produce on trucks. Others will dramatize activities on a dairy farm such as rounding up the cows, driving them into the barn, and guiding them into their stalls. Still others will depict the wholesale market. Here they receive produce from farmers, label crates, and weigh and count the various food articles. Other children who do not care to participate in dramatic play cut out and mount pictures of farm implements, prepare a story review, or depict on a series of bulletin boards what they have learned about a certain kind of farm.

There are no rigid lines drawn between good and poor readers. The children will not interpret flexible grouping as segregating slow learners. The slow learner is

796.

less likely to develop feelings of inferiority; the rapid learner, less likely to conclude that he can succeed without diligently applying himself.

**Specialized Vocabulary**

You will recall Dr. McCullough's statement that a good general vocabulary does not assure a good social studies vocabulary, that knowledge of one synonym for a word does not assure knowledge of another, and that a word means what it does where it *is*, not what we think it means in isolation.

Very early in the grades the children meet somewhat technical terms in the content fields. Science books include many arithmetical terms such as distance in miles; weight in pounds; time in seconds, minutes, hours, days, weeks, and years; and estimates of numbers of persons, animals, trips, and even fish eggs in hundreds, thousands, or millions. Geographic terms are also used in a somewhat technical sense. Examples are map, river, ocean, shore, desert, soil, valley, and mountain.

When the proper time has come for using reading material that includes such specialized words, then we must teach them. We should teach the children to study any definitions that are given in the book itself. The teacher may ask the children to locate the definition (*e.g.*, "Moving air is wind."); he may have the sentences read orally and discussed, or may list on the board certain new words, with page references for pupils to consult as they read silently.

Most textbooks display informative pictures that illustrate things named in the text and show the steps in a process. Pupils must be taught to extend their vocabularies by studying such illustrations.

Charts aid greatly in teaching the basic words. A chart entitled "Farm Animals" may list, illustrate, and use such words as *sheep* (*e.g.*, Sheep give us wool and mutton.); *cow* (*e.g.*, A cow gives milk.); *calf* (*e.g.*, A cow's baby is called a calf.). A chart on China may list transportation words such as sampan, junk, ricksha, and carrying pole.

Wide reading is also useful in extending the child's vocabulary and enriching his concepts.

Let us remember that our pupils are very immature readers. They cannot develop new meanings and concepts through reading alone. If skillfully guided from the first grade on, they can learn to apply self-help methods and become increasingly independent.

**Reading Materials**

The materials for teaching reading are now widely varied. In the content subjects they include textbooks, supplementary books, reference books, trade books, magazines, newspapers, and numerous audio-visual aids.

Let us illustrate at the primary level how some of these materials can be used to advantage in teaching a science unit on common pets. The teacher's aim is to develop the child's ability to observe the appearance and habits of different kinds of animals.

Since science is not learned primarily through reading, the teacher begins the unit with observation of real animals. Maybe an animal such as a turtle or a duckling is brought into the classroom for a week or so. The classroom is equipped with an aquarium, a large animal cage, and several smaller ones. Throughout the day the children make unguided observations of the animal. At certain times the teacher directs their observations by means of questions that bring out basic facts.

The teacher and children compose informative charts telling about the animal. Examples are "What Our Pet Can Do," "What Our Pet Eats," "How to Care for Our Pet." Through these experiences new words are introduced, used, given meaning, and mastered in written form.

At this point the teacher introduces visual aids and books. Pictures are examined to gain further information. The children look through books to find pictures or stories related to the animal they are studying. As soon as they are able to read, the teacher lists questions to which they would like to find the answers. She encourages them to consult more than one book. She points out that not all books will agree on a point, and that one book may be more correct than another.

Thus the reading materials are used as an integral part of the science unit to promote the concepts which the teacher is endeavoring to develop.

As the children gain reading ability,

books can play a greater part in science learning. Children may consult them to verify their findings in an experiment. Or they may search books for suggestions for further experimentation or to discover pertinent facts that the class did not know.

### Child Development

A concept of major importance is that of child development. "We are building human beings of one kind or another when we teach reading." This concept, stressed by Dr. McCullough, is also the chief thread running through the Sixtieth Yearbook of the National Society for the Study of Education, Part I, devoted to reading.

The most important single step to implement this concept is that of using children's literature in conjunction with the content areas. Stories and poems ought to be used for enjoyment, for the insights which they give about the world, and for the ideals and spiritual values they disclose. Fortunately in social studies and science, the supply of children's literature is steadily increasing.

We can find superior writings, exciting for the young child and appealing to many interests. We can entice the children to read, help them to read well, and let them share their reading experiences. In this way, we will develop not only a taste for good books, but also a spirit of exploration and discovery in the content fields.

veloped the skills to interpret the musical symbols, may produce discord. Thus, the teacher of reading, who accepts the totalitarian approach of interests without the basic skills which are needed to interpret the printed symbols, may produce a "chaotic" reader. Too frequently we fail to remind ourselves that reading is an acquired skill, psychologically acquired rather than mnemonically acquired.

Being cognizant of the scope and depth of this important aspect of the reading process, my assignment is confined to the "Changing Concepts in the Development of Basic Reading Skills *in the Primary Grades.*" It is my intent to limit my discussion to *the changing concepts that have occurred* and to elaborate upon *the concepts that are occurring.*

### The Basic Skills in the Primary Grades —in Retrospect

It would be inappropriate to discuss current changes in the development of basic reading skills without presenting a brief resume of the "past." From decade to decade, the development of basic reading skills has borne the brand of CHANGE. *Some changes* have lasted, *others* have "faded," *all* have been conductors of excitement, and *many* have ushered in breakthroughs in reading progress. In examining the succession of changes, progress has been characterized by trends which have marked turning points in the development and evaluation of basic reading skills in the primary grades.

*Word recognition* was the first basic skill to make a formal entrance into the reading field. Its debut via the alphabet method was followed by the development of a phonics system, and by the word unit method. Concurrently making entree were the phrase method, the sentence method, the paragraph method, and the story method. How well you read was determined by how well you "fed back" the words orally! Thinking was not necessary.

*Silent reading* with emphasis on *factual comprehension* void of thinking symbolized the next sizable era of growth. *Word recognition* with stress on phonics continued and the importance of reading in other school activities took their place on the "ladder of reading." Attention also was given to speed reading—not to what

254

Vol 9, 64

# PART III SEQUENCES

## SEQUENCE I READING IN THE CONTENT FIELDS

## A. ELEMENTARY SCHOOL

### 1. Essential Types of Reading in the Content Fields

GERTRUDE WHIPPLE

SUCCESSFUL guidance of content reading is impossible unless the teacher has a knowledge of the structure of the particular school subject. He must know the specific concepts and generalizations to be promoted in that subject.

For example, a description of Switzerland in an elementary geography is not intended to teach the industrial and other processes described, but rather to promote the principle that a people living in a country with few natural resources can make a good living by importing raw materials and exporting finished articles. New England is another region that exemplifies this general principle. Detailed facts are quickly forgotten; but knowledge of the fundamental principle can aid the pupils in reconstructing the details and in interpreting life in other areas that show similar man-land relationships.

Another requirement for good reading instruction is that reading be used as a medium of learning only when it is the most effective method of achieving the teaching purpose. Obviously, if some other medium such as taking a trip or viewing a film would be more productive, reading ought not to be used. A further requirement is that the book employed should be the right one for the particular pupils; if they have low comprehension, the time spent in reading an inappropriate book will be excessive.

Let us now turn to the question: What are the most fruitful types of reading to attain the objectives of the content subjects?

#### Oral Reading Versus Silent Reading

Oral reading has limited value as a means of learning, for the rate of oral reading is less rapid than the rate of silent reading. And yet a common practice consists of having children take turns reading aloud from their textbooks. Under this slow oral method the listeners tend to view the content as bits of specific, detailed information rather than to grasp the broad ideas.

Some types of oral reading, however, can function in the curricular areas: pooling pertinent information on a topic from newspapers, magazines, pamphlets, and books; reading orally to prove or disprove statements; giving others instructions, directions, or announcements; combining oral reading with speaking or speaking from notes; and oral practice for participation in a play, a radio program, or a dramatic dialogue. Oral reading has special value in teaching the semi-technical words and phrases in that it tends to increase the reader's experience in using the words and the listener's experience in hearing them spoken.

The teacher's main problem in guiding oral reading is to motivate it and to develop standards of accurate reading, effective emphasis, and ability to convey meaning and feeling to the listeners.

#### Skimming

Silent reading is especially useful in the content areas. The types may be classified on the basis of speed of reading and the kind of thinking involved. The most rapid type is skimming; that is, the reader glides quickly over the text without reading it carefully.

A reader uses such scanning chiefly for locational and survey purposes. He hunts up topics in an index, words in a diction-



799.

*who, what* and *when*.

## Summary

To advance children toward maturity in reading in the content fields, the following points deserve consideration in instruction: (1) Reading should be used only when it is the most effective medium for the purpose. (2) Real reading is idea-centered rather than fact-centered. (3) Real reading can be promoted only if the teacher has a knowledge of the structure of the subject. (4) Various kinds of reading ought to be used to further the goals of the content subjects, as opposed to one or a few patterns of reading.



ary, articles in an encyclopedia, or maps in an atlas. He may look for certain words on a page such as references to animals, or mountains, or for information in answer to a question. He uses survey skimming in examining a chapter to see its general organization and what sections, if any, apply to a given problem. Or he may skim a chapter for review purposes.

Since skimming saves much time and energy, children should be taught to use this technique when it is appropriate. They must learn to keep in mind just what they are skimming for. In the early learning stage, children often revert to continuous reading at their customary rates.

### Cursory Reading

Cursory reading occurs when one reads as rapidly as he can to get an overview of a selection or the main ideas. He skips over difficult words and minor points, but he does read in more detail than when skimming. Cursory reading is especially important when the reader must deal with a lengthy selection preparatory to careful reading.

Other uses of cursory reading are: to comprehend simple directions for an experiment; to review ideas to be used in a dramatization, a report, or a discussion; to check one's memory of ideas; to formulate questions to be asked of others or to be answered by careful reading; and to sample books to see if one wants to spend time reading them.

In view of the large amount of material that the well-informed adult must read today, it is imperative that children increase their speed of reading through practice in cursory reading.

### Assimilative Reading

Assimilative reading means abstracting what the author has to say. This kind of reading is concerned with literal meaning and does not go below the surface to implied meanings. Unlike cursory reading, assimilative reading is not hasty or neglectful of details.

The child may carry on cursory reading to get facts or to follow explicit directions for an experiment or a do-it-yourself project or to find out what travel folders say about a foreign country. The teacher may use the facts and literal meanings in developing thinking abilities through discussion.

The teacher's main problem in developing assimilative reading ability is to discourage attempts at rote memory. It should be impressed upon the children that repeating the words without understanding is of little or no value. The teacher should show the children how to test themselves for the recall of ideas.

### Critical Reading

Critical reading is the slowest kind of reading because it is reflective. As described by Sterl Artley, critical reading "is an active process of reflecting with care on the ideas expressed, of making a rigidly exacting analysis and, as a result, arriving at a valid conclusion."* This, the slowest and most difficult type of reading, requires freedom from personal bias and a background of experience against which new ideas can be evaluated.

There are many situations that call for critical reading. In social studies, pupils need to compare the points of view in one editorial with those expressed on the same topic in other editorials; to analyze historical material to see the connection between events so that they can draw inferences; to solve simple problems by assembling pertinent facts, classifying and comparing them, and reaching reasonable conclusions in light of the facts. In perusing literature, pupils should interpret the motives and emotional reactions of characters in order to understand their behavior.

Unless the teacher helps children to develop a critical attitude toward what they read, they are not likely to do so. If the teacher asks them to read to the bottom of a certain page in a history book or to complete the next chapter in a science text, they will do little else than superficial reading. If the teacher's questions tend to call chiefly for facts, children will not engage in reflective thought. They need help in formulating reading purposes that demand critical reading within their abilities. Such purposes stress the *how* and *why* of events as opposed to the

*A Sterl Artley, "Critical Reading in the Content Areas," *Critical Reading: An Introduction*, 14. National Council of Teachers of English: Champaign, Illinois, 1959.

800.

255.

Vol. 10, 1965

## 2. The Bilingual School 271.

PAUL W. BELL
Dade County Public Schools
Miami, Florida

THE PURPOSE of this paper is to examine a school in which bilingualism and biculturalism are thought of as advantages and not disadvantages. The Coral Way Elementary School in Miami, Florida has as its goal the development of pupils who are literate, educated bilinguals. The advantages of bilingualism are offered to English-speaking pupils who would not normally have the opportunity to learn two languages in childhood. In this school native English-speaking pupils study not only the traditional curriculum, but also study Spanish and learn to study the curriculum in Spanish. At the same time, Spanish-speaking pupils who must learn English in order to achieve in an American school receive this necessary instruction in English and in addition, they are offered a program which will make them literate in their native Spanish. Coral Way is a school in which all pupils have the opportunity to become completely bilingual.

The question may be posed as to why Miami needs a bilingual school. The answer can be found in an examination of the community. Miami is a bilingual area with over 200,000 native speakers of Spanish in its population. For many years



Miami has looked to Latin America for commerce and tourism. The community has a need for educated bilingual clerks in stores, bilingual executives in businesses, bilingual doctors, bilingual secretaries, bilingual lawyers, bilingual policemen, and even bilingual bell-hops. In short, the bilingual has an advantage in almost every category of employment. As important as bilingualism is in this community, there will be an increasingly greater demand for educated bilinguals nationally.

In the spring of 1963 it was, therefore, decided that one elementary school out of Dade County's more than 150, would offer a bilingual program. Before the school itself was chosen, certain educational objectives were established. Assumptions were incorporated which were developed through an examination of research and through the experiences gained from examining the second language and vernacular programs for the Cuban refugee pupils who had entered the Dade County schools. The goals were these:

1. The participating pupils will have achieved as much in the way of skills, abilities, and understandings as he would have had he attended a monolingual school, and in addition will have derived benefits which he could not have attained in a traditional school.
2. He will be approximately as proficient in his second langauge as he is in his first. If he is a skilled reader in his first language, he will be a skilled reader in his second language. If he has mastered the fundamental processes and concepts in arithmetic in one language, he will handle them equally well in the other language. If he can express himself clearly and adequately in his first language he will be able to do likewise in the other language.
3. He will be able to operate in either culture easily and comfortably.
4. He will have acquired consciously or unconsciously an understanding of the symbolic nature of language and as a result will be able to achieve greater objectivity in his thinking processes.
5. In general terms he will be more acceptive of strange people and cultures and will thus increase the range of his job opportunities.
6. He will have skills, abilities and understanding which will greatly extend his vocational potential and thus increase his usefulness to himself and the world in which he lives.
7. He will broaden his understanding of people and the world and be able to live a richer, fuller and more satisfying personal life.

Once the goals were established, the school was selected. Coral Way was chosen because of three factors. First, it was located in a neighborhood which was approximately 50 per cent Spanish-speaking and 50 per cent English-speaking. Second, the neighborhood was a reasonably stable middle-class community. The third factor was the interest of the staff, the administration of the school, and the parents in the idea of providing bilingual education for the children of the area.

In the late spring a series of meetings was held with the parents. The goals of the program were explained; questions regarding the organization and the curriculum were answered. After the last meeting, the parents of the pupils who were to be in grades one, two, and three during the 1963-1964 school year were given the option of enrolling their children in the bilingual instructional program or in a traditional program. There was no screening of pupils nor entrance requirements for enrollment. However, individual counselling was provided for those who desired it. It was carefully explained that the program was not for the gifted or academically talented only. The staff was equally careful to explain that it was expected that pupils' progress would be comparable to that of pupils in a traditional program. Any parent could withdraw his child at any time it was felt that school progress was being hindered by the bilingual program. It was further explained that the first year only grades one through three would be involved, but that an additional grade level would be added each year until the full six-year program was developed.

801.

As a result of these meetings, enough children were involved to permit the creation of four classes on each grade level. Two classes were formed of native speakers of English and two of Spanish. Registration for the traditional program was so limited that only two classes were formed, a first and second combination and a straight third grade. In general, the pupils involved in the bilingual program reflected the normal range of the school population.

Six teachers from the faculty were selected to work in the English program and six credentialed teachers who were native speakers of Spanish were hired to work in the Spanish program. All of the Spanish-speaking teachers were bilingual though none of the American teachers were. Three non-credentialed aides were added to the staff to help with clerical work and to assist in the instructional programs in art, music and physical education. The aides represented the only overstaffing of the school and their salaries were the only expenditure not provided for in all of the county's elementary schools.

During the summer of 1963 and again in 1964, the teachers, the aides, the principal and members of the County Bilingual Education Department were involved in a special full-day, six-week workshop. Detailed plans and schedules for all phases of the curriculum and for the school's operation were developed.

In seven curricular areas, special attention was given to problems resulting from the bilingual nature of the program. Detailed linguistic sequences for English as a second language and Spanish as a second language were developed in order to incorporate the concepts of the several content areas in the curriculum. Science was given special attention because the availability of parallel texts in English and Spanish made it possible to sharpen the science concepts through their study in divergent cultural settings. Spanish as the vernacular was given special attention because no satisfactory program was available and one had to be created. Music, art, and physical education were given attention because in these areas intracultural relations would initially be the greatest. In all areas of the curriculum, the program in the bilingual school incorporated, and was in harmony with, the regular Dade County program as it appeared in curriculum bulletins.

For the instruction in English, the State-adopted texts were selected. Special English as a second language materials were provided. For instruction in Spanish, four series of texts were ordered: a Spanish basal reader series, a Spanish translation of the science series, a Spanish health series, and a Spanish modern math series. All of these materials were recently published in the United States, and reflected modern American pedagogy in their approach to content. Supplementary reading and reference materials in Spanish were ordered for the library.

The principal, working with his staff and with the director of elementary education, developed a complex and comprehensive schedule to insure the best possible staff utilization and to guarantee sufficient time blocs to carry out the curriculum.

The pupils participating in the bilingual program, both English-speaking and Spanish-speaking, receive approximately half of their instruction in each language. The time devoted in instruction in the second language for each group is staged so as to increase the proportion gradually. During the first year the staging affected all three grade levels. This year it affects the first grade only. The time allotted to the learning of the basic skills and concepts compares favorably with the time regularly allotted in Dade County in monolingual schools, the only difference being that in the bilingual school the time is divided between the two languages. In the beginning stages the basic skills and concepts are always introduced in the first language of the child. These skills and concepts are then incorporated into the second language program as part of a language learning experience. In this way the child reinforces the concepts and skills and at the same time advances in his mastery of the second language.

In order to insure close correlation between the curriculum in classes in the native language and the second language curriculum, teachers are organized into teams. Each team has one English teacher and one Spanish teacher who work with

the same group of approximately 60 pupils. In the team working with native English-speaking pupils, the English team member is responsible for developing the usual English curriculum during half the school day and the Spanish-speaking teacher develops the second language program for the same pupils during the other half of the day. In this way each teacher works with two groups of boys and girls. In the teams working with the Spanish-speaking pupils, the Spanish-speaking teacher develops the traditional curriculum and the English-speaking team member develops the second language program. The aides provide released time for the teachers so that they have an extended planning period at the same time.

Now that the program is completing its second year, objective data is being gathered. Preliminary examination indicates that the pupils are making progress comparable to that made by previous classes which were involved in a monolingual program. Perhaps a better indication of the success of the program can be seen in the fact that after one year of offering the bilingual program, the parents of the pupils who were in traditional classes requested that their children be moved into the bilingual program, thereby making it unnecessary to provide regular classes in the primary grades. In the course of the past two years only three or four parents have requested that their children be withdrawn from the program. Parents have also reported their third-graders are helping their high school aged brothers and sisters with their Spanish lessons.

The evaluations from teachers have also been generally favorable. One first grade teacher who has taught in the school for years summed up the teachers' attitudes when she was asked, "How do you explain the pupils' good progress when only half the day is spent studying English?" Her answer was, "I seem to be planning better and wasting less time. The pupils also seem to be more highly motivated to learn."

In terms of curriculum, it is anticipated that next year the language of instruction for units developed in grades three through five will not necessarily depend on the first language of the pupils. Groups will be mixed and the units will often be developed in the language which best fits the content.

Plans are presently under way to start additional bilingual schools in Dade County. Their success will depend to a large extent on three factors. One, the programs must be designed and tailored to fit the school and the school community. Two, the teachers must be educated in their first language and trained in the use of modern pedagogical practices. Three, ample time must be provided for detailed planning and correlation of the instructional programs.

The pupils in Coral Way are rapidly becoming bilinguals who are distinctly "culturally advantaged." They are learning to operate effectively in two languages and in two cultures. These boys and girls are broadening their understanding of other people. They are being prepared to live satisfying lives and to contribute to their community and their country.

803.

25.

# 1. A Beginning-Reading Program for the Linguistically Handicapped

PAUL W. BELL
Dade County Public Schools

EVERY YEAR in almost every state of the United States thousands of handicapped pupils enter the first grade. Their handicap is less obvious than that of the physically handicapped—the blind, the deaf, the crippled. They are linguistically handicapped. More often than not their handicap is one which exists only in the school and disappears as soon as the students return to their homes or to their neighborhoods. These students, who have functioned perfectly well for six or more years in the home environment, suddenly find that the language they speak is not the language which the school expects them to speak. Theirs is not the language of school instruction.



Let us examine these children more closely. Who are they? What are they? Very often they are the children whom the professional educator has begun to classify under the label of culturally disadvantaged or culturally different. In New York they are the Puerto Ricans; in the Southwest they are the Indian children, the Spanish-Americans, the Mexicans, and the Mexican-Americans; in Miami they are the Cubans, and in all sections of the country they are very often Negroes or the Appalachian Whites. They are the children who don't fit into the neat middle-class, Anglo-Saxon stereotype for whom textbooks have been written and whom teachers have been trained to teach.

Defined in terms of what I have called their linguistic handicap, these children fall into two major categories which are useful classifications, though, perhaps, they reflect oversimplifications. Statistically, the largest group is made up of native English-speaking children whose speech habits are non-standard. The second group is made up of children for whom English is not the native language. These are the bilinguals whose control of English may range from knowing a few words to complete fluency. Many of these children come from the lowest socioeconomic levels, though many do not. Many of them come from homes in which educational aspirations are low, though many do not. Many of them are members of groups which have been the object of prejudice and discrimination, though many are not. They all, however, have one thing in common—the problem they face on entering school. They must learn not only to read and write standard English but they must also learn to speak it if they are to succeed in school and achieve maximum social mobility. Whether this demand is fair is not the question; it is simply one of the facts of life in our language-conscious society.

## Basic Assumptions

Pertinent to an understanding of a beginning-reading program for these pupils are certain basic assumptions. First, it is important to understand that the language-handicapped children are not children without language. They have almost complete control of a sound system and a structure system. They control a vocabulary which may be limited but is nevertheless adequate to describe their experiences and express their needs. Nor are they children without concepts. They have well-developed sets of concepts which have grown out of their preschool experiences although these experiences and resulting concepts may be quite different from those which teachers expect.

For too long these children have been doomed to experiencing unsatisfactory progress in school and to resulting academic retardation. Usually what we describe as "their failures" are really our failures as educators. We have said or implied that the child is simply not ready for the instructional program of the school when in truth the instructional program of the school is not ready for the language-handicapped child. The world of Dick and Jane and the language which exists in their world have not been appropriate for the pupils we are discussing.

## The Miami Program

One attempt to develop materials specifically geared to the needs of these children was begun almost three years ago in Miami, Florida. The Dade County Public Schools were faced with a crisis too big to ignore when thousands of non-English-speaking pupils entered our schools. The school system, with the support of a grant from the Ford Foundation, developed a beginning-language and reading program, the *Miami Linguistic Readers* series, designed specifically for first- and second-grade bilingual and language-handicapped pupils.

The *Miami Linguistic Readers* series consists of a readiness unit, twenty-one pupils' books organized into fifteen levels, two "big books," and a seatwork booklet and a teachers' manual for each level. The pupils' books correspond to the preprimers, primers, and readers of other developmental-reading series. The "big books" provide charts for inducing language practice and for focusing on reading problems. The seatwork booklets are workbooks which provide writing activities that reinforce oral expression and reading. The teachers' manuals describe

804.

activities for language, reading, and writing practice. This two-year program represents a serious attempt to apply the findings of modern linguistic science to both language learning and to learning of reading, in an instructional package which also utilizes the sound pedagogical practices of good developmental-reading programs.

In developing the *Miami Linguistic Readers,* the staff attempted to create materials which not only meet the academic needs of the pupil but which also recognize the pupil's interests, his imagination, his need to succeed, and his need to identify.

### Referential Content

The content and appearance of the pupils' books of the Miami series are somewhat unique. The books themselves resemble trade books. Each of the twenty-one books tells a complete story. Each of the stories, even the first of the series which uses only eight words, has a definite plot with cross-cultural appeal. The characters in the stories, though they are not all human in form, have very human characteristics which are easily identifiable.

In the first group of nine stories the characters are all animals—animals which are in the tradition of children's literature everywhere. They can speak, act, and react like human beings. Most of the more-than-six thousand children who have used the Miami series have had no trouble identifying with Tiff the puppy who has to learn to sit, to drink, to bury his bone. They can even identify with Biff, Tiff's father who faces frustration trying to teach his son the lessons that every good dog must learn. Oddly enough, no child, whether Cuban, Mexican-American, Negro or white, has ever worried about the race or national origin of Biff or Tiff. They also have no problem feeling compassion for Nat the Rat, who, like the children themselves, sometimes does things that get him into trouble with authority. And they feel sincere relief when Nat, who has been very bad, in a later book, manages to get out of the king's dungeons, save little Tiff from drowning in a well, and thereby become rehabilitated and a worthwhile member of society. Nat even joins the scouts and accompanies Tiff and his friends on a camping trip.

The next four stories are all adaptations of fairy tales and folk tales. *Jack and the Beanstalk, Rumpelstiltskin,* and *Dick Whittington and His Cat* are retold. The focus of the next books is on real children in unusual situations. There is Mark who helps to save a jet airplane which he has come to think of as his own. There is Matt, a boy from the city, who befriends a stray black cat that later helps him realize his dream of becoming a newspaper boy; and there is Carlos, a migrant worker's son, who, through a combination of his own hard work and good luck, gets the bicycle he has dreamed of. A Navajo Indian legend about a great white horse, a story of Lincoln, a mystery, and a space fantasy complete the series. The single most important criterion used in developing the series was that each story would be one which would help children develop a love for reading.

### Natural Speech

The fact that a series includes interesting stories does not by itself make a good language or reading material. Other factors must be considered. Stories which are the basis for beginning-reading instructions should be written in such a way that they reflect the natural speech of children. It is possible that constructions such as "See funny father" and "See something blue," which are often found in primers, may not present a problem for many children. However, it is certain that such constructions do nothing for the child who must learn standard English. In traditional materials the caption for a picture of a dog drinking from a bowl would be "The dog drinks." This caption, of course, does not describe the action illustrated, which is "The dog is drinking," but instead presents the notion, at least to the adult reader, that the poor dog must have a drinking problem.

In the early books of the Miami series the language used is neither "primerese" nor a highly stylized literary form. It, for the most part, reflects the natural speech forms of children: what the child reads is like what the child has learned to say. As the pupil progresses through the series developing reading and language skills,

805.

he builds a readiness for a more literary style.

### Aural-oral Control

It has long been recognized that a child should be able to say what he is later expected to learn to read. With this sound premise in mind, many educators today are advocating an extended period of purely oral work for the language-handicapped pupil in general, and particularly for the non-English speaking pupil. Many people suggest that this oral program should extend for as much as a year beyond kindergarten. Those of us connected with the Miami series feel that this approach cannot be justified. It seems to be a further admission that though the child may be intellectually ready to learn to read, we are not professionally ready to teach him.

Therefore, built into the Miami series is a sequential oral-language program based on linguistic principles. Through structured-language practice distributed throughout the series the pupils gain control of the sounds, structures, and vocabulary which they will need in order to read the materials. We believe linguistic readiness, like all other aspects of reading readiness, is best provided for when it is developed before each new learning task and not when it is developed globally a year or so before reading instruction begins.

### Process vs. Skills

Another problem which confronts the linguistically-handicapped child when he is presented traditional reading programs is his inability to master the mechanics of reading because of the continuous demands on him to verbalize about what he is learning to read. The focus in the early materials of many reading programs seems to be more on the uses to which reading is put than on the mechanics of reading.

In the Miami series an attempt is made to first guarantee that the pupil can attach sound to the symbols on the page before he is asked to interpret the stated or implied meaning of what he has read. From the very beginning, emphasis is placed on reading with meaning; but it is also placed on word-attack skills and on reading by structural units. The emphasis on mechanics, however, does not mean that thinking skills, study skills, and interpretive skills are ignored. On the contrary, a complete skills program comparable to that of any other well-developed developmental series is built into the materials. The choice is not between process or skills; it is merely a question of sequence. Through the use of "big books," pupils' books, and activities described in the teacher's manual, the pupil learns to read what is written with understanding and then is led to interpret and to integrate what he has read.

### Sound-Symbol Correspondences

Drawing on the findings of linguistic research, the staff of the Miami project organized the series in a way which should lead the child to a conscious awareness that English writing to a large extent follows predictable patterns. The relationship between the sequence of letters on the printed page and the sequence of sounds which we utter when we read is brought into focus. Though this correspondence between sound and symbol is not a one-to-one correspondence, it does exist and the pupil can be taught to react automatically to the spelling patterns.

It is no wonder that children fail to see the patterns when they are confronted with much of the reading in traditional materials. For example, in one series words such as *come, go, book, Spot, down,* and *to* all appear in the preprimers. In each word the letter *o* represents a different sound. It would be difficult for the pupil to discover anything predictable on the basis of these items.

In the Miami series the sequence for introducing the writing system is based on vowel-consonant spelling patterns. For example, in the first two books every word introduced with the exception of *and, cat, a,* and *the* contains only the one vowel, *i,* and it appears only in words in which it has the value of *i* as in *sit*. In the next book more "short-i" words are cumulated and "short-a" words such as *hat* and *rat* are introduced. In each of the subsequent books other spelling patterns are introduced in the meaningful context of the stories. In the twenty-one books, all the major and most of the minor spell-

806.

ing patterns of English are systematically presented and dealt with.

### Grammatical Control

Another feature of this series which makes it appropriate for the language-handicapped pupil is the controlled introduction of grammatical structures. This feature allows the pupil to systematically reinforce, through reading, language patterns of standard English which he is acquiring. The child who is struggling to learn standard English should not be confused by the too rapid introduction of new syntactical patterns. For this reason, in the first two books of the series, only directions, calls, and sentences with the present progressive (is + ing) are introduced. Level two introduces statements of identification with *is,* such as, *Nat is a rat* and *Pap is a pig.* Each subsequent book introduces new structures on which the pupil has had adequate previous oral practice.

### Writing Experiences

In addition to the pupils' books, "big books," and teachers' manuals of the *Miami Linguistic Readers* series, there are seat-work booklets. These booklets are workbooks which provide writing experiences to reinforce the language learning which is taking place and to reinforce the child's control of the spelling patterns which have been introduced. The seat-work booklets also contribute to the skill-building program which is developed in the series. Through listening, speaking, reading, and then writing activities, the pupil is involved in a four-fold language-arts program.

### Other Controls

In addition to the control of grammar and the staged introduction of the spelling patterns of English, the project staff has maintained other controls which provide for a sequence of learnings presented in small steps. In *Biff and Tiff,* the first book of the series, only eight items are introduced in a text of 56 running words. In level seven, *The Magic Bean,* which is the last book in the first-year program, 49 items are introduced in the 1242 running words presented in the 48-page book. Average sentence length increases in a gradual progression from an average of 2.7 words per sentence in the first book to an average of eight words per sentence at the end of the first grade. The number of new items per page ranges from an average of .38 in the first book to an average of 1.1 in *The Magic Bean,* level 7.

Similar controls are exercised throughout the second-year materials. The number of new words per book increases from 52 in *Rumpelstiltskin* to 120 in *The Twin Mystery,* the last level in the series. Similarly, the number of running words in each 48-page book in the second-year program increases from 1,352 to over 3,000 in the last level.

The total number of items introduced in the pupils' books of the series is approximately the same as would be found in the first two years of a traditional program. However, because of the staged introduction of the spelling patterns the pupil should have developed automatic responses to new items to such an extent that his word-attack skills would be comparable to those of a pupil who has completed three years of a traditional material.

As a further aid to insuring success and continuous progress, a plateau story follows every three levels. These plateau books introduce few new learning problems. They are an easy reading stage in the sequence. In these plateaus, skill development is emphasized.

### Methodology

The beginning-reading program which has been described represents an attempt to create instructional materials and not new methodology. It is not a new method of teaching reading. It breaks with tradition in the area of organization and to some extent in the area of content, but it follows tradition in its suggested techniques for teaching reading. We have attempted to harmonize the experience which successful second-language teachers have had with the accepted methods of teaching reading developed by reading experts during the past few decades.

It is our feeling that the well-trained primary teacher should not have to be "retooled" in order to be able to teach effectively a reading program for the language handicapped. Naturally, the teachers who understand the principles of linguistics, sociology, psychology, anthropology, and related subjects will be equipped to do an even superior job.



During the past two years over 6,000 pupils have been involved in the field try-outs of the Miami series. The evaluation of their teachers in Florida, California, Arizona, New Mexico, Colorado, Texas, and Puerto Rico, where the field try-outs have been conducted, have reconfirmed our belief that the linguistically handicapped child can learn to read, and to read well, if he is provided with the kind of program that meets his needs. It is to be hoped that more material will be developed—material which will help the teachers to do their jobs more effectively.

The well-trained primary teacher using appropriate material holds the way to the school's success with the language-handicapped child. We must use that key to open the door to new horizons for a large segment of our population.

Many of the language-handicapped pupils, who had their first reading experience with the Miami series almost two years ago, are now ready to move into third grade, reading on grade level. Though all of their school problems have not been solved, they are entering the "mainstream" of American education.

807.

257.

tute for the "understanding of talk." Essentially, it is a languaged-related process, fundamentally and primarily audio-lingual, whose graphic forms are mere representations of their oral counterparts.

In learning to read, a kind of decoding or "transfer" takes place which stimulates the recognition of meaning through the oral language. For developing reading skill, pupils must form automatic habits of accurate response in recognizing the visual forms and bring meaning to them through previously established oral language. Just by looking at the written symbols or printed forms, the learner should be able to receive the "talk" or "speech patterns" of the language.

In other words, the oral language is the constant factor in the reading process, and it is the reading teacher's primary task to insure mastery of related audio-lingual exercises as a prerequisite to the introduction of reading. Oral production and facility are needed for effective reading development, since one important aspect of the reading process is developing the pupil's ability to recognize accurately and rapidly the visual symbols (printed words) and to gain meaning from them through their oral or spoken counterparts.

When native English-speaking children enter school, they have had ample experience in speaking English, having learned to use in basic structural patterns from 2,000 to 6,000 words. By the time they have had initiatory experience in reading readiness, they may be introduced to reading; and in the initial stage of reading development, the teacher needs only to limit his materials to the oral language mastered previously and teach their representative visual forms.

Teaching non-native speakers to read English as a second language is a different matter. When the average child of this group enters school, he knows no English or only a limited amount; and he brings with him a different cultural heritage from that of most other members of the classroom. Therefore, he is faced with a dual task: he must adjust to a strange foreign-speaking environment and master a minimal counterpart of the new language audio-lingually before he can be introduced to reading. In other words, he must learn another language, making

## 2. Adapting the Reading Program to the Needs of Non-English-Speaking Children

366.

FAYE L. BUMPASS
Texas Technological College

IN CONSIDERING a program for developing reading skill in a second language, one should take into account what the reading process involves, how it relates to language development, and what aspects and problems are of primary importance in fulfilling the needs of non-English-speaking children.

Reading is a learned performance through which the printed or written symbols come to have meaning. It may also be defined as the decoding of a particular writing system into language. Informally, it has been referred to as getting meaning from "talk written down" or as a substi-

808.

it his "first" for all of his school relationships, and compete at the same time with native speakers of the same age and grade level.

What adjustments must the teacher make in his reading program to include the development of adequate audio-lingual skill in the new language as an integral part of his school program? What materials, methods, and techniques are best suited for insuring successful reading achievement? What determinants should be taken into consideration in his pre-planning and sequencing of materials?

First of all, the teacher needs to consider the children he is teaching. He should familiarize himself with their cultural heritage and native linguistic backgrounds and learn in what ways these interrelate to their adjustment to the school environment and the attainment of linguistic objectives. Through this type of diagnosis, the teacher can recognize the deep significance and full implication of their cultural and linguistic disadvantages and can create a wholesome learning environment in which there is adequate challenge coupled with reasonable success and personal satisfaction.

If the children come from a "restricted-experiential-conceptual" background, the teacher knows that they lack vital first-hand experiences necessary for expanding their fund of concepts and information. He needs to give many opportunities for class visits, listening-viewing experiences, and drills in associating words to objectives and activities that are meaningful. If they come from an environment where the "achievement expectancy" receives little emphasis, they must be guided through *experience with success* until learning *per se* can carry its own intrinsic motivation. If they have developed a low-aspiration level through repeated failures and home limitations, they need goals set that are within their grasps and which carry the reward of successful achievement. If they encounter isolation, ridicule, and non-acceptance by members of their school group, they need help in establishing and maintaining status and in developing a healthy self-image. And above all, they need the security of knowing that their teacher is interested in them and is able to show them affection at all times.

Second, the teacher needs to consider the type of oral language program he must organize as a basis of reading development. His fundamental task is to help the non-native English speakers widen their linguistic backgrounds through a sound and adequate program based on audio-lingual drills. He must try to substitute the realistic for real life situations and strive to crowd the English-speaking children's experiences of several years into a few months of intensive and minutely organized oral practice. In their first year of school, all types of interesting activities in a kind of play atmosphere should be used to help the children learn to "hear," "recognize," and "reproduce" all basic forms and lexical items that they will need in their reading program.

In order to insure audio-lingual development, the learner in the new language must begin where the first language learner did. He must learn to *discriminate* the sounds he hears in the stream of speech, to *articulate* the sounds accurately in imitation of a model, and to *assimilate* their meanings while he is practicing them for automatic control. The more meaningful the material to be learned, the greater is the facility of learning and retention.

Even the youngest pupil can assimilate both sound and structure and establish the link between language and behavior just as the first learner did if the materials for class drills have been presented to bring about *careful listening, accurate repetition,* and *meaningful practice*. More specificallly, the class presentation should be given through the sequenced steps of *LISTEN, REPEAT,* and *PRACTICE.*[1] The pupils "listen" to each pattern repeated by the teacher and associate sound and meaning through the visual materials or dramatized action used to explain meaning. Then they "repeat" the utterance, imitating the tone of the teacher's voice and the up-and-down movement of his hand that coincides with the rise-and-fall of his voice as an aid to correct intonation. Finally, they "practice" each pattern over and over, in many meaningful situations and activities, in order to assim-

[1]Faye L. Bumpass. *We Learn English.* New York: American Book Co., 1958.

809.

ilate the new language for future recall and use.

Third, the teacher should take into careful consideration the materials he will use in teaching non-English-speaking pupils to read in the second language. The most appropriate materials for meeting the academic and communication needs of these children are those that contain the basic features of English sound and structure and are arranged in teachable units following this sequential progression: *listening* to *speaking* and *reading* to *writing*.

If the teacher does not have available materials that fulfill these requirements, he may adapt the materials he does have to meet the most urgent of these needs. His guiding principle should be as follows: *No words or patterns of speech should be presented for reading development until they have been mastered in automatic form both aurally and orally.* In other words, pupils through the oral-practice session must learn how to say what they are expected to read. If they are reading, "Bing can run" or "The dog is running," they must be able to say these sentence patterns with correct rhythm and pronunciation and know what they mean. Such a prerequisite may also be applied to reading of short paragraphs or longer selections as well as to the basic-sentence patterns.

Last, the teacher needs to utilize a method of presentation and effective techniques for attaining the language growth necessary for successful reading development. The subject matter must be organized in a carefully designed sequence of minimal steps so that each step is made easier by virtue of the assimilation of the material presented in previous steps. Likewise, it should be arranged so that the pupils progress to the terminal behavior making a minimum of errors in the process.

Since the accurate and rapid recognition of visual forms is the most important skill to be attained in the initial stage of reading development, the teacher should use sequenced steps and a variety of ways to help pupils master this skill. First, he should establish a favorable class situation for *motivating interest* and *clarifying concepts.* Then through organized oral practice associated with visual referents, he should insure the pupils' recognition of all new concepts and check on their comprehension before he presents the written forms.

In presenting the printed forms for intensive drill in the *"LOOK and SAY"* step, the teacher may use flash cards or write the words on the blackboard and have pupils *look* at the words while they *say* them alone or in sentence patterns under the teacher's direction. Such oral practice with pictured clues are an aid to pupils in establishing meaning association and in helping them "fix" the graphic symbols in their memory. Varied activities, such as calling attention to configuration, analyzing parts or synthesizing them into wholes, finding and framing words, and flash-card games and drills, may create interest and stimulate learning.

When all words have been drilled on for recognition mastery, the next step, or "READ," is given. With non-English-speaking children, guided oral practice on each sentence in the lesson narrative should be given, first with books closed and then with books open. The teacher should have the pupils repeat the lesson narrative line-by-line and direct them by the tone of his voice and the up-and-down movement of his hand to more accurate imitation. He should use pictures and dramatized action to reinforce meanings through sound and structure drills of auditory patterns. Silent reading of the same material should follow the oral-activity drill. As a culminating activity, the teacher should have individual members of the class read aloud. Much stress should be given to correct pronunciation and intonation during the reading; and if errors are noted, more drill is needed. This activity should be strictly teacher controlled. The greatest danger is allowing the pupils access to the graphic forms too soon and thereby reducing essential oral drill through repetition.

To avoid "word-calling" without comprehension of meaning, the teacher needs to make frequent tests to see if the pupils are really getting the meaning from what they are reading. An *"ASK and ANSWER"* step should form a follow-up exercise of every reading lesson. Questions cued to elicit full sentence responses,

810.

matching exercises of all kinds, and completion tests may be used to advantage.

Though oral practice is the core of the reading program in the second language, pupils should have frequent opportunity to reinforce the oral forms through writing drills as culminating activities in the last step or *"WRITE."* The writing exercises should lead into a spelling lesson based on the reading materials and dictation exercises of basic declarative sentences and questions to be used as homework.

At about the fourth-grade level, the non-English-speaking pupils begin to falter in their progress. Lack of mastery of concepts on previous levels, a greater vocabulary load, and inability to cope with abstract concepts found in the reading program contribute to making the number of failures greater. On this level also they have to begin to read thought units of increasing size, such as the phrase, the clause, and longer sentences.

Some kind of supplementary-reading materials whose primary purpose is that of affording interesting material of high emotional content arranged around basic structural patterns to improve oral-language ability would be able to help them "bridge the gap" through this transition period. The five-book series of *"Let's Read Stories"*[2] was published with this purpose in mind. Serving as a link between the audio-lingual stage of language development and the acquisition of reading skill, each story is divided into brief sections preceded by a series of sentence patterns taken from the longer sentences within the reading selection. New elements of vocabulary and structure are grouped together to afford organized-pattern practice drills based on the reading. By using these drills for intensive oral practice (first with books closed and then with books open) as an aid to reading development, the teacher can help pupils establish the meaning of visual forms through the oral counterparts of structurally related items.

When the pupils read the section following the drill pages, they will learn to grasp meanings through longer meaningful units (or sentence-bearing patterns), rather than by a word-by-word transference. Approximately one hour per day should be devoted to this specific reading activity from the fourth grade upward when pupils are found to be deficient in reading ability. Not only does this material furnish reading on a high-interest level, but it gives the teacher the organization and step-by-step progression that will insure the pupils' success in reading.

In his efforts to adapt a reading program that will fulfill the needs of non-English-speaking children, the teacher must remember that they are not only learners of new linguistic skills but are also participants in a whole new cultural environment. By recognizing the deep significance and full implication of their cultural and linguistic disadvantages, by selecting appropriate materials and effective teaching procedures, by establishing a step-by-step progression built on linguistic findings, the teacher will become a positive catalyst in building these children's dignity, self-respect, and worth and in making them happier children in today's classroom and more valuable citizens in our world of tomorrow.

[2]Faye L. Bumpass. *Let's Read Stories.* New York: McGraw-Hill Publishing Co., 1965.

811.

258.

## 11. Teaching the Bi-Lingual Child

### a. Helping Spanish-speaking Children Acquire a Functional Use of English as an Aid to Reading

236.

FAYE L. BUMPASS

Until very recent years, Spanish-speaking children were *the forgotten children* in American education. Not that they were completely overlooked, but their plight was hardly given adequate attention and the real significance of their linguistic handicap and its far-reaching influence in the development of essential reading skills was often misunderstood by both the administrators and the teachers responsible for their schooling.

How can elementary teachers aid these children linguistically so that they can develop the basic reading skills? What specific techniques may be used to attain the functional mastery of English (their second language) so important in developing reading ability? What training, materials, and techniques are urgently needed by teachers in attaining this objective?

#### Considering the Basic Problem

The teacher's first task is to recognize the problem as basically a linguistic one. She must realize that what Spanish-speaking children have to do is to learn English as a foreign language at the same time that they adjust to a new and strange school environment, competing all the while with native speakers of their age and grade level. In other words, these children must not only learn a foreign language in the grades, *but they must also make thi. second language their first in all of thei school relationships.*

She should consider, as a comparison the linguistic development of native English-speaking children when they firs enter school. They have had at least five years of linguistic experience in thei native English tongue, having developed a minimum vocabulary of from 2,000 to 6,000 words which they can use in sentence context to communicate their ideas on a level consistent with their ability, background, and experience.

In other words, they can *understand* these words when they are spoken; they can *repeat* them correctly; and they can *use* them accurately in sentences, having experienced their concepts in many different meaningful situations. After a little preliminary training and school adjustment, the average member of this group is ready to recognize their graphic or written form; that is, he is ready to learn to read in a relatively short time.

The average Spanish-speaking child, with his practically non-existent vocabulary in English, is in no way ready to proceed toward reading development; that is, if reading is to become "the talk written down" which the reading process should be. If the psychological principle that *no new words should be presented in reading until their use has been mastered orally* holds true for native English-speaking children, it must surely hold true for Spanish-speaking children who are learning to read in the second language.

It is essential that every word which Spanish-speaking children learn to read must have been previously mastered in automatic form both aurally and orally through functional activities. These children must develop the ability to "hear" (understand aurally in the new language), to "repeat" (produce orally with correct pronunciation and intonation), and to "use" (have intensive practice in correct usage in basic sentence patterns) all words that will form the basis of their first reading program.

The teacher's second task is to choose the minimum basic vocabulary which Spanish-speaking children must master aurally and orally before they may proceed effectively toward reading develop-

812.

ment. She must consider the number of words to be taught, the time and place for teaching them, the sources from which they may be taken, and the criteria for selecting them.

According to Tireman,[1] an authority in the field, a minimum spoken vocabulary of 300 to 500 words (with a comprehension of 500 to 700 words) and a minimum sight vocabulary of 75 words are needed. Other authorities place the requirement even higher. At San Jose School in California, for example, the minimum oral vocabulary of 500 words is expected of all Spanish-speaking children before they enter the first grade.

The two criteria for choosing the vocabulary are *immediate need* for oral communication in making school work move forward as smoothly as possible and *future usefulness* in application to the first reading program. Words common to a majority of the reading readiness books, and pre-primer, and primer texts as well as the first two books of the "We Learn English" series, published especially for teaching English to non-English speaking children, may be used as the basis for selection.

Emphasis on aural comprehension and gradual mastery through repetition of certain essential classroom phrases should be given almost from the first day of classes. Examples such as "Please come in," "Go to your seat, please," "Don't run in the hall," "May I leave the room?" or "I want a drink" as well as the classroom objects should be taught *whenever* or *wherever* the need arises.

**Working with a Purpose**

Helping Spanish-speaking children overcome their language handicap is often contingent upon the teacher's *attitude* toward these children and their special problem and the *methodology* she uses in her classes. What these children need is a teacher who understands their cultural as well as their language differences, who accepts them with kindness and affection at all times, and who adapts all their learning activities to the fulfillment of their special needs.

[1]L. S. Tireman. *Teaching Spanish-speaking Children*, Albuquerque, New Mexico: University of New Mexico Press, 1948, p. 85.

Experiences of linguistic scientists in recent years have shown that "learning another language means to learn the sound system of that language" and that a non-native speaker does not usually "hear" those sounds which do not exist in his native tongue. He tends to substitute for them ones that do exist which are similar in sound and production. He may be taught to "hear" the non-existent sounds by being taught to produce them accurately.

Spanish-speaking children often refer to their teacher as "Mees," although she may have repeated "Miss" correctly to them many times. Likewise, they frequently make many other vowel and consonant substitutions, such as: "Petsy" or "Pahtsy" for "Patsy"; "dahg" for "dog"; "pool" for "pull"; "leaf" for "leave"; "race" for "raise"; and "choose' for "shoes." What has happened? They are substituting similar sounds from their language for the ones they do not "hear" accurately.

As soon as possible, the teacher should learn the most common "trouble making sounds" for Spanish-speaking children and become acquainted with the essential patterns of stress, pitch, and intonation in the English language. With this knowledge, she can more readily anticipate the errors these children will probably make in their oral English and learn to diagnose errors more rapidly when they do occur in the class period.

Learning to hear and imitate correctly is not enough for teaching a second language, however, for young children must be led to *use* all new concepts over and over in all kinds of interesting and meaningful situations before their speech habits can be *fixed* so that they can follow correct channels without conscious choice. Their language instruction must be natural and so planned that it moves readily from one experience to another in each stage of development.

The interests and needs of Spanish-speaking children do not differ basically from those of other children and by organizing the subject matter content around psychological principles, the teacher may obtain more effective results. Such principles as "proceeding from the known to the unknown," "motivating interest on

813.

the child's age and emotional levels," "using simple utterances within the child's understanding," "teaching meaningful vocabulary in context at normal tempo," and "insuring automatic aural-oral mastery of all new concepts," are of primary importance.

#### Utilizing Effective Techniques

Through *careful listening, imitative repetition,* and *intensive practice,* Spanish-speaking children can attain automatic oral use of the basic vocabulary needed for expressing their basic needs and for progressing effectively toward reading development. The best techniques for this type of mastery are those that stress the importance of presenting all materials to the ear, have intensive oral repetition for fixing the vocal patterns, and allow for meaningful practice in purposeful experiencing situations.

The specific order of sequence, no matter what type of activity is involved, is *listen, repeat,* and *practice,* with exact reproduction and automatic mastery as the goals. An example showing how these progressive steps may work is found on page ten of *With Pepe and Bing,* the first book of "We Learn English" series:

1. Listen—(The teacher says "listen" and then repeats the new concept *run,* explaining its meaning through dramatized activity or a picture. Members of the class will enact the command as she says *run.*)
2. Repeat—(The teacher repeats *run,* emphasizing the correct pronunciation of all sounds in the word and stressing those that are different in the mother tongue. The class says *run* in chorus, as different members enact the command. The teacher listens for possible errors during this oral drill.)
3. Practice—(The teacher leads the children to practice the new concept in varied activities, and gives practice in individual repetition of the concept in such patterns as "See ..... run" or "..... can run" as this child is enacting the command, whom she leads to repeat "I can run," when he finishes the action.)

As a culminating activity, the teacher uses the song "Run" (p. 37) for teaching the basic sentence patterns enacted and for giving drill in repeating the correct rhythm pattern. By using her hand like a choirmaster, she can indicate the correct rise and fall of the voice within the pattern.

No matter what approach may be used, whether *basic narrative, storytelling, dialogue,* or *choric pattern drill,* the teacher must keep in mind that her objective is to teach oral language skills in automatic fashion and must use every technique at her disposal to attain this objective. If she succeeds, the reading activity of Spanish-speaking children may be simply the recognition of the "graphic forms" of all lexical items and sentence patterns that have become a part of the neural mechanism during intensive oral drill.

#### Selecting Appropriate Materials

If a teacher uses text material designed for children whose vernacular is English, she may find them very difficult for children learning English as a second language. She should strive to choose materials that offer a basic and flexible program for aural-oral development and that can serve as a guide to her in teaching basic reading skills. Their cultural content should in some way reflect pride in the Spanish heritage of these children and should offer familiar and appealing reading material within the children's grasp. Besides, the materials should be geared to the children's age, interest, and emotional level, and they should have only a limited number of vocabulary items, with frequent and spaced repetitions to insure their mastery.

Finally, appropriate materials should take into consideration a progressive step-by-step organization that will aid the teacher in her task of teaching the meanings of new words, overcoming pronunciation difficulties peculiar to native Spanish-speakers, and of giving properly sequenced drills for rapid mastery of basic sentence patterns.

If the teacher is faced with the task of adapting inappropriate materials to fit Spanish-speaking children's special needs, she should delve into the linguistic differences between Spanish and English in order to find the words that must be given special drill. Her criteria for selecting these additional terms should be those that present difficulty in meaning or pronunciation and need special practice on structural forms.

By recognizing the full implication and deep significance of the linguistic handicap of Spanish-speaking children, by improving their linguistic training and cultural outlook, by deciding upon specific foreign language objectives and working with the purpose of attaining them through effective techniques and appropriate materials, elementary teachers can aid Spanish-speaking children to greater success in the oral mastery of their second language and to more effective development of their reading skill. At the same time they can contribute their part toward making these children happier today and more valuable citizens in the world of tomorrow.

239.

814.

259.

Vol. 10, 1965

# SEQUENCE XIII TEACHING READING TO SPEAKERS OF OTHER LANGUAGES

## A. PRIMARY LEVEL

### 1. A-V Aids for Spanish-Speaking Pupils

MARION CLINE, JR.
Texas Western College

THIS STUDY was proposed and conducted for the purpose of closing the educational gap between the bilingual and the English-speaking child through the use of an extensive audio-visual program. Audiovisual aids were selected as a promising method of closing the educational gap because their use minimizes the abstractional problem, and because any promising method of instruction which is adaptable to the needs of such marginal children should be studied if bilingual children are to be helped to reach the level of educational achievement of their Anglo contemporaries.

#### Importance of the Study

In the Northeastern part of New Mexico where the study was conducted, some 70 per cent of the Spanish children come from homes where Spanish is the mother tongue. Research indicates that: (1) there is a deficiency in the usage of the English language by Spanish-English speaking children; (2) these children fail to reach the achievement level of their capacities; (3) the Spanish-English speaking child lags behind his Anglo contemporaries; and (4) these discrepancies are due primarily to the inability of the Spanish-speaking child to comprehend the abstraction expressed in the English language.

#### Methods of Procedures and Organization of Study

The school years of 1959-61 were spent in seeking a means of overcoming the language handicap of bilingual pupils by the use of audiovisual aids. A total of twelve groups were used, six experimental and six control. During a one-half hour a day period totaling two and one-half hours per week, the experimental groups were taught with all available visual and audio aids suited to the fourth grade curriculum. The control groups were instructed without any special attention to the use of audiovisual aids other than those normally used in the typical classroom situation. The experimental groups utilized films, filmstrips, records, slides, pictures, and other audiovisual materials. Special emphasis was placed on the use of audiovisuals which correlated closely with the textbook series in use. The one-half hour block of time was used daily to concentrate on vocabulary development and reading comprehension.

#### Process of the Study

Twelve teachers who were teaching at the fourth-grade level during the school year of 1959-60 were chosen to test the hypothesis.

Since the study was to evaluate the progress in language arts when normal classroom situations were supplemented with audiovisual equipment and materials, groups were watched as nearly as possible in each location by class size, the teacher's background and experiences, and the educational background of the children. An attempt was made to keep the groups as closely matched as possible in such factors as would be found in a normal rural classroom in the geographical area of the state where the study was conducted.

A total of 289 fourth-grade students were involved at the beginning of the study, 151 experimental and 138 control. These students were followed through their fifth grade year.

*Equipment and Materials.* The six experimental groups utilized five pieces of audiovisual equipment. Each experimental group had at its disposal a 16mm movie projector, a 35mm filmstrip and slide



815.

projector, a tape recorder, an opaque projector, and a three-speed record player.

*Testing.* The California Achievement Tests and the Gilmore Reading Paragraphs were administered pre and post to the groups. Voices of the students reading the Gilmore Oral were evaluated for diction, enunciation, and loss of inflection, characteristic of the Spanish sing-song form of speech, by members of the speech department of the grantee.

*General Observation.* Only through effective proof of their practicality will new techniques be accepted by the classroom teacher and school administrators. The committee members were agreed that the improvement indicated by the tapes warranted the use of audiovisuals in the teaching of bilinguals.

## Interpretation of Objective Data

An expected gain between the beginning and the ending tests (Fall 1959 and Spring 1961) was 1.7, and this figure was used when computing the per cent of expected gain achieved by each group in each area with 1.7 equal to 100 per cent.

*Vocabulary.* The first year, fourth grade, experimental groups (1959) showed a gain of .3 year more than the controls in terms of mean grade placement and 18 per cent more improvement than the controls in terms of expected gain over the two-year period of the project.

*Total Reading.* Over the two-year period of the project, the first year experimental fourth grades (1959) improved .4 year more than the controls in terms of mean grade placement and 24 per cent more in terms of "expected gain."

Over the entire period of the project, the experimental group achieved 100 per cent of expected gain compared with 76 per cent achieved by the control group. The difference of 24 per cent was a $t$ of 6.40 which was significant beyond the .01 level of confidence in favor of the experimental group.

*Implications for Education.* This study lends encouragement to the adaptation of audiovisuals for the specific purpose of conceptualization for bilinguals. The results of this study must not be construed as proof that audiovisuals are a panacea for the bilingual problem.

This study indicates the value of using audiovisuals for bilinguals in the basic field of language arts at the elementary level. It also indicates that improved teaching may result from their use. They should not, however, be considered a substitute for a well-prepared teacher. If anything, audiovisuals demand even more thorough preparation from the teacher. The use of audiovisuals was effective, but they should not be used as *the* method; rather, they should be used as aids to the teacher's fundamental method.

Both objective and subjective evidence was found to substantiate definite improvement in language arts with the use of audiovisuals; the study also pointed up other beneficial by-products.

816.

260.



### c. Helping the Bi-Lingual Child with Curriculum Experiences Involving Reading

242. EDWIN H. COLBATH

In New York City there are ov 100,000 Puerto Rican children and ov 25,000 children of foreign birth. Ma of these children are truly bi-lingual that they can use either the language their birth or English in their daily acti ilies in and out of school. These childr learn well in the regular curricular pr gram provided for all children.

There are in New York City, howeve more than 50,000 of these children wh are only nominally bi-lingual. Some them depend upon translation from the native language into English to conv ideas. Their speech is thus often hesita and unidiomatic. Some of them are ab to use English in stereotyped situation Some of them can speak little or no En lish for any purpose. All these we wi call, not bi-lingual pupils, but Englis learners, and for these we provide sp cialized instruction.

Part of the specialized instruction th is given to these children can be labele the teaching of English as a second lan guage. The study of this type of teachin has become a complex discipline drawin on the findings of an intensive analysi of the structure of English, as well as o the results of a critical reexamination o the psychology of learning a second lan guage. There are available in publishe form well organized programs for teach ing English as a second language whic are based on this research.

The teaching of English learners is however, complicated by the necessity o meeting their needs in many curriculun areas—safety, health, guidance, the Amer ican Heritage, science, mathematics, etc Many of these needs are urgent and shoul be met as quickly as possible.

To do this, the teacher needs to us many avenues of communication—real experiences, audio-visual aids, pantomimes, dramatizations, etc. It is the thesis of this paper that reading is necessary to supplement this program, even though the matter to be read may sometimes fail to mesh exactly with the program of teaching English as a second language.

This view is based on experiences in teaching non-English speaking pupils of a variety of national origins. In spite of our increased use of other learning aids, reading is still the chief tool for independent learning. When our English learners master reading and study skills, they often surpass many of our native English speakers in achievement in our regular curriculum, even though the language learners speak English with an accent and may sometimes use foreign forms. On the other hand, if their reading and study skills are poor, they seldom fulfil their potential for regular school achievement, regardless of oral ability.

These are matters that have not been as carefully studied as the linguistic problems of teaching English as a second language. Moreover, they present troublesome practical problems to the teacher.

To help the teacher with these curriculum problems the Puerto Rican Study of the Board of Education of the City of New York, under the leadership of Dr. J. Cayce Morrison[1] published a series of resource units, one of which is referred to below. They are keyed to the New York City courses of study, especially the Language Arts and the Social Studies. They suggest ways and means of coordinating learning in these subjects with the development of knowledge and skill in other subjects. While they stress those activities, concepts, and themes that are more conducive to English language learning, they provide basic and enrichment experiences for simultaneous use with English speaking children and English learners.

For example, all New York City children in the fifth grade study "How Colonists Became Americans" in one way or another. In this resource unit the basic experiences suggested for classes with English learners make use of such activities as:

Seeing filmstrips or films about explorers
Looking at products brought to Europe or Asia, or at pictures of them
Following an explorer's route on a globe
Visiting a museum to see homes of colonists
Learning a colonial dance
Singing "Yankee Doodle"

You can see that an attempt has been made to provide opportunities for the English learners to become acquainted with an important aspect of our American Heritage through experiences which they can enjoy with their English-speaking peers. The initial demand for a knowledge of English is not great. Opportunities for growth in concepts are limited only by the ingenuity of the teacher in devising means of communicating with these pupils. As pupils progress, enrichment activities are suggested which reach into the fields of science, mathematics, art, music, health, and map skills.

Growth toward these curriculum goals does not proceed very rapidly, however, if the reading material in English is restricted to items related to the systematic program of second language instruction. I should like to suggest five approaches teachers may use to develop the reading ability of English learners so that they may use reading as a tool for independent work in other curriculum areas:

1. Common-group experience reading
2. Reading in English material already familiar to pupils in their own culture
3. Systematic training in the use of context clues
4. Training in the use of cognates
5. Training in the use of dictionaries and cognates

#### 1. Common-Group Experience Approach

In this approach the reading matter is based on the immediate interests and experiences of the group, and is prepared by the pupils with such guidance from the teacher as may be needed. In the curriculum program being suggested here, great reliance is placed on trips, visual aids, and dramatizations. Using these experiences as the basis for reading lessons helps reinforce the learnings achieved in

[1] J. Cayce Morrison *Resource Units for Classes with Puerto Rican Pupils in the Fifth Grade*, The Puerto Rican Study, Board of Education, City of New York, 1957, pp. 10, ff.

817.

261.

## 2. Dialect Barriers to Reading Comprehension

KENNETH S. GOODMAN
Wayne State University

THE HYPOTHESIS of this paper is: The more divergence there is between the dialect of the learner and the dialect of learning the more difficult will be the task of learning to read.

Each of us speaks a dialect of English distinguished from all other dialects by its sounds, grammar, vocabulary, and idioms. The dialect each child learns in the intimacy of his own home is his mother tongue, his vital means of communication with the world. It is rooted in his sub-culture. Some dialects may be more socially prestigeful but no dialect is more effective than any other for the sub-culture which uses it. Rejecting a child's speech in school is worse than any other kind of rejection because it jeopardizes the child's means of self-expression and communication.

Children have become so skilled in the use of their mother tongue, the native dialect, by the time they start school that they judge what is right and wrong in language by whether it fits within the system of their own dialects. These dialects are not vulgarizations of standard English but systematic language strains. The process by which language is learned is the same whether the language is standard or divergent.

We use the term divergent to indicate a dialect that is different from that which the school treats as standard. It is important to avoid labeling dialects as better or worse than others.

Divergent language in an isolated rural community is more homogenous than that of the urban "melting pot." There is a diversity of language shading off from distinct divergent dialect to near standard in the centers of our great cities.

All speakers of a language are ethnocentric. They regard their own speech as correct and all others as incorrect. Teachers must avoid yielding to their own ethnocentrism. They must accept language in all its variety. Teachers must also learn to distinguish language divergence which is based on immaturity and that which is dialect based. Children's immaturity in language is inconsistent with the dialect they speak and is on its way out of their language. But dialect-based divergence is constantly being reinforced by the child's parents, friends, and neighbors.

Teachers must abandon the search for a mythical national standard in speech and accept the fact that there are several regional standards, the speech of cultured users of the language in each region. Teachers must also disabuse themselves of all notions that the written language is a standard. No characteristic of written language, such as spelling, can be used to decide what is correct in speech. Written language is only a graphic transcription of the language in its oral form. Language of children should be judged not on correctness but on the criteria of how effective it is in meeting the child's expanding needs to communicate and express himself.

In the classroom of the divergent speaker there are many variants of the language. There are the idiolects, or personal languages, of the child and his classmates. Represented in their speech is the dialect of their parents and their speech community. The teacher's own informal language is there. But the teacher brings to the classroom a more formal version of the language: his view of how the language *should* be spoken. Literary forms of the language exist in the books in the room. In addition there is the artificial language of the basal reading texts. This multiplicity of language complicates the learning.

Two things are in the favor of the divergent learner in the classroom. First, all speakers of a dialect of language have the ability to understand, fairly well, a

818.

range of dialects other than their own, particularly if these dialects are heard frequently. Second, the spelling of American English is constant across dialects. No matter how different words are pronounced the spelling remains the same. *Wash* is spelled *w-a-s-h*. It is not spelled *wawsh, wosh,* or *warsh.*

Now let's look at the specific areas of language divergence which might cause difficulties in learning to read.

Phonemes are the significant sounds of the language. The stock of phonemes for American dialects is basically the same but not all dialects use all phonemes in the same settings. A phoneme is not a single sound but a range of sounds which the speaker considers to be the same. The range of sounds in a given phoneme may vary from one dialect to another. Homophones, words which sound alike, also vary. In my speech *bin* and *been* sound alike. But in other dialects *bean* and *been* are alike, while in still others *Ben* and *been* are homophones. Phonics programs are based on getting the learner to identify a sound in his speech with a letter which represents it in written language. Since the sounds of speech vary so from dialect to dialect no phonics program could ever be satisfactory for all dialects. If a phonics program is not consistent with the dialects of the learner it may confuse him more than it helps.

Recently some new reading programs have appeared, such as the Initial Teaching Alphabet, which attempt to get rid of inconsistency by providing materials in which each letter always represents the same sound. But to be consistent these must either be firmly based on a single standard dialect, or the spelling must vary for each dialect group that uses the system.

Inflectional changes are changes in the words, usually through word endings, to produce changes in tense, person or function. Dialects do vary in this respect. *He see me* with no inflectional ending on *see* is grammatical in some dialects. By grammatical I mean that this phenomenon is not a case of a sloppy speaker dropping a word ending. It is systematic in all such instances in the speaker's dialect. Alternate forms of these word endings are not the same in all dialects. I say *posts* but others say *post-es.*

The syntax of language, the patterns and rules of language sequence, varies somewhat among American English dialects. Some do not use the present tense of *to be* in many utterances. They may say, *I here, He home now* for example. Verb forms and verb markers (auxiliaries) are among the grammatical elements which commonly vary. Some speakers may say *We was going* or *I done it.* These differences, again, are systematic and rooted in the dialect. The learning problems that result can't be solved by spot corrections of individual words and instances.

Dialects vary also in intonation, the patterns of stress and pitch and pause. Perhaps it is the intonation of a strange dialect which makes it hard to understand. Intonation is very important in comprehension of written as well as oral language. No one really knows how much the use of unfamiliar patterns of intonation by a child in his reading may interfere with his comprehension but it is probably considerable.

Dialects also vary in vocabulary. Different words are used to express the same idea and the same word is sometimes used with different meanings in various dialects. Unfamiliar words and unfamiliar uses of words are harder to read than familiar ones. Texts published for a national market can't account for this vocabulary diversity.

Of course even if these dialect problems didn't exist there would still be a problem of cultural diversity. No matter how skilled a reader a person becomes he can't understand things which he reads that are based on experiences and concepts which are beyond him.

With these dialect-based difficulties in mind here are the key elements of what I believe is the best approach to teaching divergent speakers to read.

1. Literacy should be built on the child's existing language.
2. The child's pride in his mother tongue and his confidence in using it to express his ideas and to communicate should be strengthened as a firm base for learning.
3. No attempt should be made to teach the child to speak a preferred or standard dialect while he is learning to read.
4. Children should be encouraged to

819.

read the way they speak. Experience stories should preserve their own natural language as much as possible.

5. Specific skill instruction should be based on a careful analysis of the language of the learners.

6. Appropriate experiences, common to the sub-cultures of the learners, and appropriate concepts should be used in reading materials.

7. Teachers must listen carefully to children's language. They must accept and understand it while presenting themselves as models of appropriate effective speech (not stiffly "correct" speech).

8. Language change must be an outward growth and expansion of the native dialect. The child must come to see his dialect as part of a larger language and his sub-culture as part of a larger general culture. The goal should be to expand his language to greater effectiveness, not replace it.

My plea is that reading teachers tune in on the language of the learners, listen, and enjoy its diversity. I believe they can adopt as their creed a motto from Langston Hughes:

"My motto, as I live and learn
Is dig, and be dug in return."

820.

262

Vol. 7, 62

## 23. Reading and the Bilingual Child

90.

LAWRENCE M. KASDON

Teaching the bilingual child to read has generally been construed to be helping him to learn to interpret printed symbols in a second language. This process includes the development of concepts necessary to read materials in textbooks and is generally accomplished by adapting those methods used in teaching the monolingual child in the public schools.

Great emphasis has been given to method in teaching the bilingual to learn to speak and read English, but little to a basic understanding of the bilingual's pattern of values. The purpose of this paper is not to tell teachers which method of teaching reading is more effective than another, but to attempt to help teachers to become more aware of some of the bilingual child's cultural background and how this may influence the child's response to the methods and materials employed by the teacher. It is the thesis of this paper that the bilingual child must also become a bicultural one in order to become a mature reader.

Generally, little is understood as to how the learner perceives his role as a student and the teacher's role. For example: What value does the child's culture place on formal education? How do his cultural imperatives operate to determine his behavior in the classroom? How do the mores and folkways of his culture prompt him to react to the methods employed by the teacher? In the process of acquiring the American culture, what factors in the community in which the child now lives are favorable or unfavorable to his becoming a proficient reader?

The strata of society from which the bilingual comes will influence his motivation to learn to read. Soon after the arrival of the missionaries in Hawaii, the ruling chiefs recognized that the ability to read and write represented power. In Hawaiian history there are incidents of powerful chiefs and chiefesses commanding the missionaries to teach them to read. I have worked with students, both bilingual and monolingual, who have told me that their fathers were truck drivers or fruit pickers and that they did not need to learn to read and write to enter such occupations.

On the other hand, I recently consulted with a teacher in Honolulu who had the fourteen-year-old son of a prominent Japanese businessman from Tokyo in her class. His knowledge of science and social studies surpassed that of many of our ninth-graders, but, of course, he could only deal with these subjects in Japanese. She said that the boy was anxious to make more rapid progress in learning to read, and her problem was finding the most efficient methods of helping him to accomplish this purpose. This case represents that of a well-educated boy who possesses many of the concepts found in our textbooks, but even he will need help in understanding certain aspects of American culture. Because the civilization of present-day Japan is quite similar to the American, the process of acculturation will be much simpler than that of a recently arrived Samoan child in Hawaii.

Another powerful influence on the child's motivational pattern is the value his culture places on education, in general, and reading in particular. When reviewing the literature, we note researchers have found that there were few poor readers among those who were bilingual in He-

821.

brew. Our experience in Hawaii with the Chinese, Japanese, and Koreans, especially first and second generation, suggest that these three ethnic groups also place great value on education. The "egghead" is a high prestige figure among them and is greatly respected. This is in contrast to the Spanish-Americans of the Southwest who appear to place little value on learning to read. This latter group is further discouraged by economic discrimination in those occupations in which much formal education is necessary.

Other mores and folkways of the culture of the bilingual child may have negative effects on the child's learning to read. Among the Spanish-Americans, the child who tries to speak English outside of the classroom may be told, "What's the matter? Are you ashamed of being a Mexican?" In Hawaii, pidgin English is commonly used by a large segment of the population. Children who attempt to communicate with their peers at play in standard English may be told, "Wassa mattah you? You talk like one damned Haole (Caucasian)?"

Still other mores and folkways may have direct influence on method. Oriental children are fearful of losing face by making an error when called upon to recite. The Samoan children, who are presently migrating to Hawaii in fairly large numbers, are extremely shy about reciting, even when they are well-acquainted with the teacher. On Niihau, where the Hawaiian language is still the native tongue but English is the language of instruction in the school, the children whisper when called upon to read orally. Imagine what results when teachers try to teach reading by the "reading-around-the-circle" or the "read-and-recite" method.

Discussion designed to stimulate critical analysis, aside from creating a fear of losing face, may also be construed as lack of good manners if, for example, a child raised in the Japanese tradition is expected to disagree with a classmate. Disagreement with the teacher, who occupies a high prestige role, might be construed by the child as demonstrating outright disrespect. Thus, using oral discussion to develop critical thinking may not be too successful in many public school classrooms where children of Oriental ancestry are the majority group.

The problem of teaching critical thinking is further complicated by two other values that many Oriental children possess —one is that the textbook is sacrosanct and the other is that learning represents memorization. In their minds, the author's opinion is not to be challenged, for this would constitute gross disrespect to a learned scholar. The author's words of wisdom are to be learned—not questioned. Many of our teachers of Oriental ancestry hesitate to disagree with what is in the textbook and feel that the reading textbook should be followed meticulously since the author knows more about teaching reading than they do.

One of the objectives of the reading program is to develop independent readers. "There is to be no talking while you read this story and answer the questions in the workbook on page 29," directs the teacher. Yet among the Polynesians, one is expected to share whatever he possesses. Among the Samoans, for example, cooperation is part of their *ethos*. The teacher working with a class that has Samoan children faces the problem of helping them to understand why helping one another is not acceptable behavior in this particular situation but a virtue in another.

While the bicultural child may be quickly helped to become acquainted with artifacts of the American culture, such as split-level-ranch-style homes, freeways and deep freezers through field trips and audio-visual aids, he may have difficulty in understanding some of the social relationships portrayed in our reading textbooks. To take an extreme example to illustrate this point: in a Samoan family an older daughter has the responsibility for raising the younger children after they are weaned. Furthermore, children are taught to keep out of the way of adults; the Polynesians have an affection for children but draw the line between the society of adults and the society of children. How strange the pictures of nice middle class Anglo-Saxon families doing so many things together must appear! When reading a fairy tale about a poor girl marrying a prince, it would seem incredible to a Samoan that this girl could live happily ever after if she did not share her new

822.

found wealth with all the members of her family.

A further problem faced by children of Hawaii is the use of pidgin English. A child arriving in the islands will have to learn pidgin in order to be able to communicate with his peers. While it is not within the province of this paper to argue to what degree a person must speak pidgin, it must be pointed out that pidgin has its grammatical structure and that the vocabulary of pidgin is extremely limited. Most words in pidgin have one rather general meaning. So that if our Samoan immigrants learn pidgin English at home, they in effect become tri-lingual, and the difficulty of teaching them to read is compounded.

In Hawaii, the continuing presence of bilingualism and biculturalism place an important responsibility on the public schools. Frequently, children representing several cultural groups are in the same classroom. Because the majority of our teachers are bilingual or bicultural, or both, they have insight into the pupils' problems since they have faced these problems in their own lives.

The principal of one of the rural elementary schools which has a large number of Samoan and part-Hawaiian students is experimenting with some new techniques in helping to develop some phases of reading for kindergarten-primary bilingual children.

Children's stories are played on tapes and records. Groups of 12 children can listen, through headsets, to these recordings as part of the regular class routine, while the teacher works with other children. The principal encourages the teachers to allow the children to listen to the tapes as frequently as possible. The children acquire a wider literary background, a feeling for plot development in a story, and a sensitivity to patterns of standard English.

During the formal reading lesson the primary teacher prepares the group for a new story in the textbook. Then the children put on their earphones and, following the directions on the tape, read silently. As they read, the children answer questions to themselves. The teacher's voice then suggests one or two correct responses to reinforce learning. After the children have completed the taped lesson, they go to the reading circle. The principal hopes to be able to purchase double-track tape recorders so that the children's responses can be taped and played back to them.

In Hawaii, we are faced with all of the problems indicated in adapting teaching practice to the bilingual/bicultural child. Except for the experimental work described above, our programs for the bilingual child is little different from mainland practices. Hence, little space in this paper was devoted to this aspect of the subject.

One other very important point needs to be made. Cultural diversity in a community can be a strength. While the school is transmitting American culture, it needs to help students to identify and preserve valuable elements of their parent culture, including language.

823.

263.

# 3. Developing Audio-Lingual Skills as a Basis for Teaching Bi-Linguals to Read

369.

W. T. POULOS
Texas Southmost College

THE YEARS from 1942 to the present have brought significant improvements in teaching foreign languages and English as a foreign language in our schools. These improvements have come about partially because of the growing national interest in this field as shown by government spending for language laboratory equipment and for teacher-training. Some have come through refined techniques and methods innovated or developed by the educators involved.

In spite of the progress noted in this area of language training, however, we have the challenge of how to teach our bi-lingual and non-English-speaking youngsters more effectively. Our school curricula, our basic textbooks, and our



teacher-training are geared to the average native English-speaking students. It is difficult, if not impossible, to find a college or university course designed specifically to help teachers learn to cope with the special problems of the bi-lingual or non-English-speaking child.

Each area of the United States where we have settlements of non-English-speaking children differs from all other areas just as each child differs from all others. For example, the Rio Grande Valley of Texas is unique because it is a Spanish-speaking area in which about 64 percent of the population use Spanish as a first language. How are we to teach these youngsters? Much has been said and written in recent years, but we have not yet found the best materials nor the best methods to help these children overcome their great English deficiencies.

What are our choices? Some suggest that we teach them in Spanish. Others suggest that we use the direct approach and teach only in English. Some suggest that we concentrate on vocabulary: "The more words they know, the better prepared they will be." Some have even suggested that a group of community volunteers teach them English conversation and language in a relaxed atmosphere. The Pre-School Instructional Program For Non-English-Speaking Children in Texas asks the teacher to stress in each lesson the following elements:

Ear training,
Phonetics and phonemics,
English structure,
Articulation, and
Vocabulary enlargement.

The Texas Program was structured as a forty-day program with a minimum of two hours per day of instruction.

Granted that this forty-day program of two hours per day is valuable, we cannot say that it is enough or that it is the best approach. Not even the master teacher can thus fully prepare the child for entering the first grade.

The instructional program for the non-English speaker should be based on the gradual development of the different levels of language learning, and it must be built around the audio-lingual skills before we can even speak of reading readiness or reading.

In level one, the youngster should have a sustained experience (of several weeks or even months) in listening and repeating. In preparing a child to be a true bi-lingualist we must first train him in listening comprehension. Although language sounds originate in the larynx and are modulated into recognizable speech by movements in the mouth, it is the ear that dominates the learning and use of speech sounds. *Ear training must come first.* The second part of language learning is the reproduction by the tongue and adjacent organs of the speech sounds the ear has learned to recognize. It must be understood that the sounds are not to be selected for drill in isolation but as they occur in the normal patterns of discourse. The patterns should be carefully selected with the vocabulary limited to situations that are both interesting and familiar to the child.

Spanish-speaking children, then, must learn English as a foreign language at the same time they adjust to a new and strange school environment. They are not only faced with the problem of learning the foreign language of English but they are placed in the peculiar position of making this second language *their first* for all of their school relationships.

Let us consider, as a comparison, the native English-speaking children's linguistic development when they first enter school. They have had at least five years of linguistic experience in their native English tongue and have developed a wide-enough vocabulary (ranging from 2,500 to 7,500 words) to communicate their ideas. Besides, they have mastered through imitation and repetitive use the sound structure of their language and its fundamental structural patterns — on a level consistent with their background and experience.

In other words, the average English-speaking child *knows* a vocabulary of at least 2,500 words. This fact means that he *understands* them when they are spoken; he can repeat them and can *use them orally in sentences;* and *he has experienced their concepts* in many different meaningful situations. He is ready (after a little preliminary training and school adjustment) to recognize their graphic representation. In other words, in

824.

most cases he is ready to read in a short time.

On the other hand, the average Spanish-speaking child's vocabulary is practically *nil,* and he is in no way ready to proceed toward reading readiness. It is a known psychological fact *that no new words must be presented in reading until they are mastered in automatic form orally.* If this principle holds true for native speakers, it must be even more necessary for the Spanish-speaking child who is learning to read in the second language.

Just how many words must a Spanish-speaking child master in his oral English vocabulary, before he can proceed with reading development? According to Tireman, one of the experts in the field, a minimum oral vocabulary of 300 words and 75 sight words is essential before any steps in reading can be taken. This amount IS AN ABSOLUTE MINIMUM. Some other authorities place the requirement higher; at Hays School, for example, a minimum of 620 words is expected of all Spanish-speaking children before they enter the first grade.

How long does it take to develop a functional use of the 500- to 600-word oral vocabulary recommended as the minimum essential for reading? When and where will these words be taught? The present-day tendency, receiving most use and some success, is that of having a two-month preschool or Head Start program in aural-oral language development for the Spanish-speaking children. If this program could be extended to a minimum of seven months, the non-English-speaking children would be much better prepared for school than they are today.

The teacher of Spanish-speaking children in the preschool is confronted with the problem of choosing the words that she will teach. Just what criteria should she use in choosing the most suitable words for presentation and development? Most authorities agree, in general, that two standards are of primary importance. They are *immediate need* for adjustment to the new school environment and *future usefulness* in application to the first reading program.

Besides the functional oral vocabulary included for school and classroom needs, the teacher must also choose and teach, in thorough and automatic form, the minimum oral vocabulary to be used by Spanish-speaking children in their development of reading. What sources may the teacher use to find the most useful words? One possible source is from readiness books which do *not* form a part of the basic-reading series used by the school system. Another might be from the multiple entries from the five basic series on the State Adoption List in Texas, and still another might be the words from their first four books of the *We Learn English* series, published especially for teaching English as a second language to Spanish-speaking children in the primary grades.

The teacher's double task then, of aiding Spanish-speaking children to adjust successfully to a foreign-speaking ambient at the same time that she helps them to break down the existing language barrier, is a very serious and difficult one. Her success may very largely be determined by two factors: her *attitude* toward both her work and the children she teaches and the *methodology* she uses in her classes.

When a child brings to school another language other than his own, he may encounter isolation, ridicule, and prejudice; and these may result in feelings of inferiority and emotional and social tension. He sometimes lives in precarious balance between what he has already been taught at home and the new ideas he must learn in this strange foreign-speaking ambient.

What he needs, most of all, is a teacher who understands his *cultural differences* as well as his *language differences,* who can show him affection at all times, and who will try to discover all the reasons there might be why he is not accepted as a member of his group. Thus, she will help him maintain and establish status; but if she is not wise enough to succeed in helping him, she may be responsible for the formation of a psychological block.

The following are some general statements which could be used as guides:

1. Teachers should remember that the use of pictures as well as objects will help students learn the pattern drills faster and better.

825.

2. The words presented should not be learned apart from the objects to which they refer.
3. Complete and detailed knowledge of a language is not necessary in the first level of language learning.
4. Use of the mind should be involved along with use of the language.
5. Language is easier to learn by practice than from rules.
6. The subject matter of a new language must deal with that which is already familiar.
7. Faulty materials should be rejected. The teacher should develop new materials to meet the needs of the youngsters in his class.
8. Every sound, inflection, intonation, rhythm, and gesture of the desired language behavior must be presented in such a way they can be imitated exactly *at the same time* that the children are associating or enacting the meaning of the new concepts and learning to use them.
9. The general order of procedure to be used for securing the mastery of all new concepts is the following:
   *Hearing* precedes *repeating.*
   *Repeating* precedes *seeing.*
   *Seeing* precedes *reading.*
   *Reading* precedes *writing.*

Only the *listening* and *repeating* skills are to be given to preschool children, unless they are ready to read.

The steps for developing reading readiness in non-English-speaking children are the same as for all other children. But non-English speakers must have a longer period for developing the language which they will use in the reading-readiness program as we envision it today.

826.

264.

Vol 9, 64

# SEQUENCE XII
# LINGUISTICS AND READING INSTRUCTION

## A. ELEMENTARY SCHOOL

### 1. An Approach to Better Reading Through the Recognition of Grammatical Relationships

ROBERT L. ALLEN

ONE OF THE first stages in a child's reading—if not *the* first stage—is that of recognizing and pronouncing words. But the mere recognition of words is not reading. Reading is finding out what sentences say. For this reason, most first grade readers introduce words not as individual items but as parts of sentences. In the introductory stages, these sentences are usually simple, short sentences, of the kind children might say themselves—sentences like *Fluffy is a cat* or *Fluffy has three little black kittens*. Even if a child reads each sentence word by word rather than as a total unit, it is still likely that he will be able to grasp the meaning of the whole sentence if he knows the individual words.

Nevertheless, although the child may be able to "get the meaning" of a short, simple sentence as a result of reading each word separately, this kind of word-recognition will not enable him to understand more complicated sentences. To be able to read such sentences intelligently, he must be able to recognize the positions that the different words occupy, and the structure of each sentence.

There is little difficulty in recognizing the structure of sentences like *Fluffy is a cat* and *Fluffy has three little kittens*. The one most important relationship in English is that between a subject and its predicate. In each of these two sentences the subject is a single word. Consequently it is easy to know when one has crossed the all-important border between Subject-Territory and Predicate-Territory. But when the subject is long and complex, and particularly when the subject itself includes verbal material, children find it much more difficult to grasp the structure of the sentence without special assistance or training. For example, one kind of subject that is likely to cause difficulty in reading is a subject containing participles (e.g., *The tall girl with red hair sitting near the window* is named Linda.) And yet the use of so-called participial phrases is one of the distinctive features of formal written English. This difficulty becomes compounded when the participle involved is the past participle of a regular verb (and therefore has the same form as the past tense form of the verb). Even a good reader, for example, might start out by reading the following sentence as if its subject consisted only of *the old woman*: The old woman called Penelope . . . Yet the words following *Penelope* might force a re-reading and re-analysis of the whole sentence, as in this example: The old woman called Penelope was a witch.

A child is not really able to read intelligently, therefore, until he is able to grasp the signification of specific words occurring in specific *positions* in specific *sentences*. The mere recognition of individual words is not enough.

What is needed is a type of English grammar which can be taught fairly easily in the lower grades, one which will help students to recognize the *sentence-units* in the more complicated sentences they are destined to meet in their reading. Above all, such a grammar must *not* be a grammar that emphasizes *words*. It must be a grammar that teaches students to regard a sentence as a hierarchy of *constructions within constructions*, on different levels, rather than as a string of words in linear sequence. 225.

Unfortunately almost all the grammars now available emphasize words rather than larger constructions. But at Teachers College, Columbia University, we have been working on a different approach to English grammar, an approach that emphasizes *positions*, especially the positions on the sentence level. These positions we call "sectors," and this kind of sentence analysis we call "sector analysis." After identifying the sectors, we examine the different positions *within* various constructions, on lower levels. We turn to the analysis of the parts of speech last, if at all.

The basic linguistic concepts involved in sector analysis—other than the concepts of different levels or "layers" of structure,[1] and of positions on the separate levels—are the analytical techniques of "shifting" and "dropping." These techniques cannot be adequately demonstrated within the limited space of an abstract.[2] However, when presented step by step, sector analysis is remarkably easy to teach in its initial stages, since it is based upon the feeling students already have for English as native speakers of the language.

Sector analysis promises to be a useful way of teaching students to recognize the most important units in a sentence. It enables students to recognize the boundaries between sentence-units on the basis of syntactic signals—*as every good reader must*.

[1]The term "layers of structure" is borrowed from Chapter XII of Charles C. Fries's *The Structure of English* (New York: Harcourt, Brace and Company, 1952), in which he rightly places great emphasis on the importance of keeping levels of structure distinct.

[2]Detailed explanations and examples of sector analysis are found in Robert L. Allen, *English Grammars and English Grammar*, a text to be published within a few months by The Macmillan Company.



827.

Vol. 9, 64

265.

# 2. Reading: Linguistic and Psychological Bases

20.

EMMETT ALBERT BETTS

ARE WE searching for effortless ways to teach reading? Effortless for the teacher or for the pupils? Or, are we researching more effective ways of teaching more pupils to read? This is one issue today which is seldom discussed in open meetings.

What hope is entertained by the teacher who tries out Bloomfield's *had-lad-gad* approach to beginning reading? Does the use of these isolated sense and nonsense words teach the pupil the so-called alphabetic principle? If so, does the teacher expect learning from drill on isolated words to carry over into effective sentence



and paragraph reading? Does the teacher believe that learning the so-called alphabetic principle gives the pupil the feel for intonation and other grammatical aspects of reading so essential to reading as an enjoyable, *meaningful* process? Will interest be heightened and reading for meaning be strengthened by a distorted, tongue-twister language used to tell about *Nat the rat, He tags the bags,* or *Pat a fat cat?* If, in the light of available experimental studies, the teacher's euphoria is not justified, then it appears that we should return to the world of reality.

These questions are not intended to raise doubts regarding the motivation or the scholarship of that giant in linguistics, the late Leonard Bloomfield. Nor are they intended to deprecate the substantial contributions of linguistics to reading instruction. Instead, they are intended to raise serious doubts regarding the adequacy of one facet of linguistics as the whole base for effective reading instruction.

Augmented alphabets for use in beginning reading are another issue. What hope is entertained by the teacher who tries out a revised alphabet? Is the alphabet really phonemic, having only one letter for each speech sound? If not, will the use of more than one letter to represent a sound facilitate or interfere with learning the alphabetic principle? Do the letters represent the same sounds in all regions? Does the use of an augmented alphabet increase the per cent of pupils who are ready for reading at a given age? Does its use either eliminate or minimize word perception needs? What is the effect on the pupil who has learned to write his name and/or to do some reading? Do the reversals (e.g. z-s, th-jh) and the slight differences between letters (e.g. W-W) create new perceptual problems? Is progress in reading less hazardous? In short, did the teacher assess the linguistic and psychological advantages and limitations of the augmented alphabet or did she buy it, halo and all?

Again, the above questions are not intended to cast doubt on the motivation of the creators of these alphabets. Neither are these questions intended as a left-handed justification of the status quo regarding our mangled spellings of a great many words. Rather, they are intended to raise doubts in the minds of teachers who expect a single idea regarding our elaborate decoding system called reading to revolutionize instruction.

## In Search of Better Structure

In the educational world today there is a diversity of *opinions* regarding the effortless teaching of reading. There are those who imply that either an individualized plan or a group plan to nurture individual differences in the classroom makes obsolete all *methods* of teaching reading. There are those who suggest that rigid controls for selecting a beginning reading vocabulary in terms of only three spelling patterns (e.g., *at-cat-rat, ate-mate-rate, eat-meat-seat*), provide for all word-perception needs and, perhaps, all needs in learning to read. In this connection, there are those who propose using all capital letters, all lower case letters, or a revised alphabet to solve the problems in beginning reading. There are those who offer a thinking program as the basis for reading instruction. Finally, there are those who intimate that any trade book offers better reading content than any textbook. For each wrong, someone has proposed a remedy, distorting the confusion and adding to the risks of irresolution on the part of classroom teachers. It is little wonder that these custodians of quality, in search of structure in instruction, resort to chasing ambivalences.

Undoubtedly, the teaching of reading is in the process of being updated. In fact, it is reasonable to expect that within the next decade the enormous gap between research in reading and cognate areas (e.g., linguistics, communication, semantics, psychology) and application to classroom practices will be significantly narrowed. This long interim between research and revised teaching practices will be reduced by the cooperative efforts of scholars in disciplines concerned with the reading *process* rather than by a linguist, a semanticist, or some other person with inconspicuous qualifications for teaching reading.

In the meantime, there is no need to live on expectations, for a significant amount of experimental evidence awaits those who will pay the price of scholar-

828.

23.

(1) (Consonant) - vowel-consonant, as in *at-hat, it-hit.*
(2) (Consonant) - vowel-consonant + final *e*, as in *make, write, note.*
(3) (Consonant) - two vowel letters-consonant, as in *boat, eat, bait.*

b. Consonants, as the /k/ sound of *ck* at the end of a syllable (*back, backing*); /s/ sound of *c* before *i* (*city*); /sh/ sound of *c* before *i* (*vicious*).

Inherent in the above thumb-nail sketch of one facet of word-perception are basic principles of both linguistics and psychology.



ship to dig for it, to assay it for relevance and significance to reading instruction, and to make it an integral part of the structure of the reading program.

Here, for example, are crucial questions on which we have some evidence:

1. What is acceptable reading behavior? What are some crucial causes of inefficient reading?
2. By what means are levels of achievement and specific needs in motivation, word perception, and thinking identified?
3. How does the teacher help pupils to develop the attitude that they are to identify their own needs and to ask for help? To evaluate the products of their own thinking on a project?
4. How and when are new word perception skills taught?
5. What does the teacher do when the pupil requests help on the identification of a word or the understanding of an idea during his silent reading?
6. How does the teacher help pupils to make automatic use of their word perception skills?
7. What is the relationship between the level of professional competence of the teacher and the effective use of group and/or individualized plans for differentiating instruction?

## Bases of Reading Instruction

Effective reading instruction rests on two broad bases: linguistics and psychology.

Linguists have improved reading instruction by continuing to research the structure of language. Their identification of large segments of distinctive speech sounds, called phonemes, has helped to put the teaching of phonics (relationships between letters and sounds) and the making of dictionaries on a more nearly scientific basis. Their study of intonation patterns, morphemes (units of meaning as *boy* and *s* in *boys*), and syntax has contributed insight regarding sentence comprehension. These linguistic insights regarding two levels of language structure —the phonological and the grammatical —offer a worthwhile *content* for reading instruction. While the contributions to reading instruction by linguists are limited, they are at the same time essential.

Psychologists, on the other hand, have improved reading instruction by researching the structure of (1) individual differences in learning, (2) motivation, (3) perception, (4) concept formation, and (5) thinking abilities. They have helped to put on a more nearly scientific basis the differentiation of reading instruction and motivation. They have helped to put the teaching of phonic skills on a broader word-perception basis. Finally, they have provided insights regarding reading as a thinking process, thereby shifting the emphasis from word-calling to thinking.

There is no dichotomy between linguistics and psychology in the teaching of word-perception skills or of thinking abilities. In word-perception, for example, a number of factors operate: need, set, feedback, closure, contrast, etc. To be more specific, there can be no feedback between the written word and the spoken word in silent reading unless the pupil has been taught the relationships between word forms and speech patterns. Moreover, the pupil needs to learn (1) the usual sounds represented by letters (e.g., the sound represented by *ir* in *bird*), (2) the different sounds represented by a letter or group of letters (e.g., the sounds represented by *s* in *saw, was* and *sure*), and (3) the different letters used to represent a sound (e.g., the *sh* sound represented by *s* in *sure* and *ch* in *Chicago*).

When a pupil asks for help on the identification of a word during his silent reading, the teacher may ask, "What part of the word is causing your problem?" If the pupil has been taught the required skill (e.g., the usual sound represented by *qu* in *quick*, or a generalization), he may recall relevant previous learning when confronted with the written word. That is, he may apply the skill.

In this connection, two types of generalizations regarding phoneme-phonogram relationships merit consideration:

1. The usual sound represented by a phonogram in a *whole* word:
   a. Vowels, as *au* in *caught, ar* in *far, ir* in *bird, ou* in *out.*
   b. Consonants, as *qu* in *quick, dg* in *edge, gh* in *rough.*
2. The rule, or generalization, regarding a situation:
   a. Vowels

829.

266.

Vol. 10, 1965

# PART III SESSIONS

## A. RESEARCH REPORTS

### 1. Validities of Grammatical and Semantic Classifications of Cloze Test Scores

JOHN R. BORMUTH
University of California, Los Angeles

IN SPITE of the fact that cloze tests are being used with increasing frequency as measures of the comprehension difficulties of passages and of the reading abilities of subjects, little is known about what scoring procedure yields the most valid scores. A cloze test can be made from any passage by replacing every fifth word with an underlined blank of a standard length. The subject writes in each blank the word he thinks was deleted. Usually, his response is scored correct if it exactly matches the deleted word while synonyms and grammatical variants of the deleted word are scored wrong. In the present study cloze test responses are classified according to their semantic and grammatical relationships to the deleted word and scores based on each of these categories are studied to find out which are most valid when the tests are used to measure reading ability and passage difficulty.

Instead of classifying responses into discrete categories and studying the validity of each type of score separately, earlier investigators obtained scores by confounding response categories. For example, Taylor (1953) and Ruddell (1963) each made cloze tests over a set of passages and obtained a set of scores by counting responses exactly matching the deleted words and another set by also including the responses that were synonymous with the deleted words. Both investigators found that including synonyms in the scores increased the variances among scores but not among the means of the tests. Ruddell also found that including synonyms slightly increased the correlations with scores on a reading achievement test. Hafner (1964) found a correlation of .61 between scores found by counting responses exactly matching the deleted word and scores obtained by counting responses that did not match the deleted word but were grammatically correct.

#### Procedure
#### Cloze Tests

A cloze test consisting of 52 items was constructed over each of 20 passages. The tests were made by replacing every fifth word with an underlined blank 15 elite typewriter spaces in length. Words were taken as being defined by the printer's spaces which separated them from other words. The parts of hyphenated words were deleted separately only when both were free forms.

#### Test Administration

These tests were administered to 50 subjects enrolled in grades five and six. The cloze tests were administered at a rate of two per test period. The periods were about one hour each and were spaced over ten consecutive school days. No time limits were imposed. Prior to administering the cloze tests the subjects were given the Stanford Achievement Test: Reading, using the instructions given in the manual. The total test scores were used in this study.

#### Cloze Test Scoring Categories

Each of the cloze test responses was classified into one of the seven categories given below. Errors of spelling did not cause a response to be counted wrong unless the response was unclassified because of its ambiguity or unrecognizability.

1. Exact Word, Grammatically Correct: (EGC).



830.

2. Exact Word, Grammatically Incorrect: (EGI)
3. Synonym, Grammatically Correct: (SGC)
4. Synonym, Grammatically Incorrect: (SGI)
5. Unrelated Semantically, Grammatically Correct: (UGC)
6. Unrelated Semantically, Grammatically Incorrect: (UGI)
7. Unclassifiable Responses: (UCR)

## Analysis and Results

The first problem was to find out which type or combination of types of cloze scores yielded the most valid measures of a reader's comprehension ability. The 20 tests were pooled to form a single 1040 item test. After a subject's responses had been classified, he was given seven scores, one representing the number of responses classified into each response category. A multiple regression analysis was then performed on these scores using reading achievement scores as the criterion variable.

The zero order correlations upon which this analysis was based are shown in Table 1. Two patterns appeared in these correlations. First, scores based on grammatically correct responses correlated positively with the criterion of comprehension ability while scores based on grammatically incorrect responses either correlated negatively or failed to correlate at all with the criterion. Second, among just the grammatically correct response categories, the correlations with the criterion increased as a function of the similarity of the meanings of the responses to the deleted words. These patterns suggest that a subject's comprehension of a passage is dependent upon both his ability to interpret sentence structure correctly and to understand the content. It further suggests that the comprehension of a passage is in some degree incorrect when the responses to cloze items are anything other than EGC responses.

TABLE I

INTERCORRELATIONS AMONG THE CLOZE AND READING ACHIEVEMENT TEST VARIABLES (N = 50)

| Variable | Mean | s | 2* | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| 1 EGC | 243.49 | 100.89 | 14 | 80 | 05 | 78 | −63 | −30 | 82 |
| 2 EGI | 14.18 | 5.83 | | −16 | 22 | 43 | −12 | −18 | 07 |
| 3 SGC | 22.67 | 12.91 | | | 15 | 50 | −39 | −34 | 64 |
| 4 SGI | 2.08 | 2.70 | | | | 24 | −02 | −15 | 01 |
| 5 UGC | 189.29 | 73.96 | | | | | −58 | −32 | 55 |
| 6 UGI | 430.90 | 193.21 | | | | | | −51 | −44 |
| 7 UCR | 135.16 | 159.21 | | | | | | | −29 |
| 8 Comprehension | 4.77 | 1.38 | | | | | | | |

*Correlations of at least 28 are significant at the .05 level

The results of the multiple regression analysis, shown in Table 2, tend to verify these interpretations. The EGC scores accounted for roughly 95 per cent of all the variance that could be accounted for by the entire set of cloze scores. Further, removing the other variables from the multiple regression equation did not significantly reduce the variance due to regression ($F_{5,44} = 1.16$). These findings were interpreted as meaning that the most valid cloze scores are obtained by scoring only the EGC responses correct.

The second problem was to find out which type, or combination of types, of cloze scores discriminates best between the difficulties of passages. This analysis was performed by scoring the test over each passage separately and then performing an analysis of variance of the means resulting from each type of score. Only the EGC, SGC, and UGC scores were used, since they were the only ones having significant positive correlations with the measure of comprehension ability. These scores were used separately and in simple additive combinations with each other. The results in Table 3 show that the largest *F* value for the differences between test means is obtained by using the

TABLE II

ANALYSIS OF THE MULTIPLE CORRELATION BETWEEN READING ACHIEVEMENT AND CLOZE TEST SCORES

| Variable | Regression Coefficient | *t* Value of Regression Coefficient | Partial Correlation | Proportion of Variance Contributed |
|---|---|---|---|---|
| EGC | .311 | .99 | .15 | .677 |
| EGI | −.221 | −.38 | −.06 | .002 |
| SGC | −.591 | −.18 | −.18 | .005 |
| SGI | .579 | .59 | .09 | .000 |
| UGC | −.155 | −.43 | −.07 | .022 |
| UGI | −.033 | −.10 | −.02 | .009 |
| UCR | −.051 | −.16 | −.02 | .000 |
| R = .846 | | $F_{7, 41} = 14.74$* | N = 50 | |

*$p > .01$

TABLE III

DIFFERENCES BETWEEN TEST DIFFICULTIES AS MEASURED BY INDIVIDUAL AND COMBINATIONS OF CLOZE SCORE CATEGORIES

| Variable | Source | Mean Square | F* |
|---|---|---|---|
| EGC | Between | 1753.88 | 44.06 |
| | Within | 39.80 | |
| SGC | Between | 19.13 | 13.36 |
| | Within | 1.43 | |
| UGC | Between | 284.88 | 8.33 |
| | Within | 34.22 | |
| EGC + SGC | Between | 1897.84 | 39.85 |
| | Within | 47.62 | |
| EGC + UGC | Between | 3229.41 | 30.45 |
| | Within | 106.04 | |
| SGC + UGC | Between | 356.97 | 9.25 |
| | Within | 38.60 | |
| EGC + SGC + UGC | Between | 3426.31 | 29.33 |
| | Within | 116.81 | |

*An $F_{19, 1000} = 2.42$ is significant at the .01 level.

EGC score by itself. Hence, using the EGC score seems to result in the greatest discrimination among passage difficulties.

## Discussion

Clearly, scores obtained by counting EGC responses were superior to any of the other types of scores included in this study. This was true whether the response types were taken singly or in combination with other response types. However, it is possible that had a larger number of subjects been used and had the various response types been optimally weighted, a slight improvement might have resulted from the use of two or more types of scores. But in view of the extremely slight improvement that this would yield and in view of the extreme expense involved in scoring responses other than those of the EGC type, it seems doubtful that such a procedure would have much theoretical or practical merit.

## Conclusions

1. When cloze tests are used as measures of individual differences in reading ability, scores obtained by counting responses exactly matching the deleted words seem to yield the most valid scores.
2. When cloze tests are used in readability studies as measures of the comprehension difficulties of passages, scores obtained by counting responses exactly matching the deleted words seem to yield the greatest amount of discrimination among passage difficulties.

## REFERENCES

Hafner, L. E. "Relationships of Various Measures to the 'Cloze.'" *Yearb. Nat. Reading Conference*, 1964, 135.

Ruddell, R. B. An Investigation of the Effects of the Similarity of Oral and Written Patterns of Language Structure on Reading Comprehension. Unpublished doctoral dissertation, Indiana Univer., 1963.

Taylor, W. L. "Cloze Procedure: A New Tool for Measuring Readability." *Journ. Quart.*, 1953, 30, 415.

286.

832.

267.



# SEQUENCE V READING INSTRUCTION INTEGRATED WITH LANGUAGE ARTS

## A. ELEMENTARY SCHOOL

### 1. Oral Base of Language Arts Teaching with Special Reference to Linguistics

ALVINA TREUT BURROWS

ORAL language is the very essence of human communication and language is more than words spoken or written on paper. We need to remind ourselves of this at a time when pressures toward ever earlier teaching of reading to infants find ready space in popular magazines and other publications. We also need to recall that children quite generally use the major sentence structures of our language, a considerable vocabulary, and many nuances of both conversational and semi-formal speech by kindergarten years. But even in optimum environments comparatively few learn to read. In recent studies one out of a hundred appears to start reading spontaneously.

Consideration of the relation of oral language to reading leads us to point out necessary differences with certain linguistic pronouncements. An aura of scholarship now surrounds the news that "Nat is a fat cat" or that "Dan can fan a man" but similar over-simplifications reach back over a hundred years. Decoding the printed symbols is averred to be the only real concern at the strategic stage of beginning reading. We are told that oral rendition is all; meaning has no importance until later. Moreover, it is claimed that a child should learn to read easily within a year after he has learned to talk satisfactorily because learning to read is *easier*.[1] No neurological data are cited to buttress this statement. Since few children actually learn to read at this stage, in spite of varied cultural conditioning and home methods, the claim must remain as being one of hope rather than of fact.

Teachers concerned with the entire spectrum of children's growth are not likely to give up their respect for meaningful response to print from the very first days of taking down their dictated language in writing and helping them read what they have said. Many teachers intuitively use certain linguistic principles in recording their pupils' natural language patterns, editing as little as possible to retain the form and intent of what children have said but enough to meet the demands of the written language. These teachers will continue to encourage reading that makes sense and sounds real, thereby using the linguistic knowledge that Professor Lloyd says has been driven by use to the level of automaticity.[2] Strickland's investigation of children's language, a milestone in what must become a road toward norms for children's oral language, shows how strong is the bond between children's control of oral language with their silent and their oral reading.[3]

Knowledge of children's sentence patterns is emerging from the foregoing studies and from others. That children use a high proportion of subject-verb-object sentences is distinctly worth knowing. It is to be hoped, however, that errors of exaggerated vocabulary control now common to pre-primers will not be paralleled by excessive sentence control in forthcoming texts. If carried to extremes in reading material, this new knowledge can produce monotony as deadly as urging Sue to "Look, look, see see."

It is to be hoped that within the next decade we may reap some of the benefits from our present ferment in the study of language and of children's learning. We should look forward to (1) richer programs productively uniting facets of oral and written language, (2) more precise knowledge of growth increments in vocabulary, sentence patterns, (3) proof as to how much or how little elementary school children gain from knowledge *about* language, and (4) more satisfying use of language by children and their teachers, both as an instrument of utility and as a means of artistic personal expression.

[1]Charles C. Fries. *Linguistics and Reading*. New York: Holt, Rinehart and Winston, Inc., 1963, p. 112.

[2]Donald J. Lloyd. *Reading American English Sound Patterns*. Monograph No. 104, Evanston, Illinois: Row, Peterson and Company, 1961.

[3]Ruth G. Strickland. *The Language of Elementary School Children: Its Relation to the Language of Reading Textbooks and the Quality of Reading of Selected Children*. Volume 38, No. 4 (July 1962). School of Education, Indiana University, Bloomington, Indiana.





833.

268.

322. B2. OPERATION IN EARLY SCHOOL YEARS

## 1. The Flow of Thought Through an English Sentence

LEE C. DEIGHTON
The Macmillan Company

IF READING is concerned with meaning, we must consider how English sentences deliver meaning. We are not teaching reading in the abstract but reading in English. We must attend, therefore, to the structures which convey meaning in English sentences and to the kinds of meaning they convey.

To go this far and no farther would leave us deep in linguistics with no path to the field of reading instruction. We must, therefore, consider the problems created for the *reader* by English sentence structures. It is the purpose of this paper to point out a few of these problems in the hope that other people may be interested in extending the analysis. These "others" need not be scholars; they may be classroom teachers who are sensi-



tive to the language and thoughtful about it.

The traditional grammar on which we were nourished is not very helpful, but for that matter neither are most of the modern linguistic analyses. What we need is a fresh, simple view of English structures as they affect the practice of reading.

Let us begin with the fact that, in English, meaning is conveyed through groups of words working together. It is not conveyed one word at a time additively. Take, for example, a noun phrase consisting of a noun preceded by modifiers and determiners: the little white house.

The reader cannot be sure of my meaning until he comes to the word *house*. At this point he finds completion or closure and a unit meaning is established:

the . . .
the little . . .
the little white . . .
the little white house.

To see what is involved here, suppose the phrase had been *the little white pebble*. The meaning of *little* would be quite different since *little* in terms of *pebbles* is quite different from *little* in terms of *houses*. Similarly, *white* is one thing in terms of pebbles and another in terms of houses. It is clear that the reader can assign meaning to the words in a phrase only when he comes to its close. He must, therefore, hold meaning in abeyance.

There is an interesting reinforcement to this view in the physical act of perception. Photographic studies show that the length of eye span in reading across a line of print is somewhat less than had once been supposed. We see relatively few characters in any one focus on a line of type before jumping to the next span of characters. The group of characters we perceive in any one focus is not necessarily a word group. In fact, a single focus may land us in the middle of a long word. Our eyes move across a line of print in jumps and pauses quite independent of meaning. This fact has led some observers to remark that meaning is acquired during the period when the eyes are moving. I would prefer to say that meaning is held in abeyance during the physical acts of eye movement.

What is true in the reading of a single-word group is true of the whole sentence. It is common sense that the reader must keep the beginning of a sentence in mind to the end of the sentence—a simple act of memory.

Far more than memory is required of the reader, however. He must hold meaning in abeyance until the end of the sentence. Two major factors of English account for this necessity. The first is semantic; the second is structural. First, most words in English have more than one meaning. Many words have a great variety of meanings, sometimes with no obvious relationship among them. Which particular meaning of the opening words of a sentence is pertinent depends upon the context of the entire sentence. It is only at the end of the sentence that the reader can fix the meanings of the individual words.

Of course, this generalization must not be pushed too far. There are many short, simple sentences in which the referent of each word is clear in itself or is made clear by context. Depending upon the nature of the game in *Tom hit the ball*, we would know who Tom is, what kind of a ball he hit, and whether he struck it with his hand, his head, his foot, or his bat or racket. However, in normal informative written discourse, the generalization holds.

The second factor requiring the reader to hold meaning in abeyance is the variety of English sentence structure. The word groups which compose English sentences may be related to each other in four ways. There are the subject-predicate relationship, the co-ordinate relationship, and the relationships of complement and modifier.

The reader's structural problem is to determine the word groups and then to see how these groups relate to one another. Until he has done this distinguishing, he must hold the meaning of the sentence in abeyance.

A prime example of the effect of word groups upon one another occurs with sentence modifiers; that is, words or word groups whose meaning applies to the whole of a sentence. To pinpoint this kind of modifier, consider the following sentences comprised of the same words:

834.

Happily, he died.
He died happily.

In the first sentence, the writer is commenting on the fortuitous fact of a man's death. The word *happily* applies to all the words that follow. In the second sentence, the writer is commenting on the manner of the man's death. The word *happily* applies only to the one word immediately preceding.

In general we may say that any introductory adverb modifier—word, phrase, or clause—modifies the rest of the sentence. The reader must, therefore, spread its meaning across all the words that follow. This point is an example of holding meaning in abeyance to meet structural requirements.

Another prime example occurs with an introductory participial phrase. Consider the following sentence:

Holding to the ledge with one hand, the climber tried to free the rope with the other.

The entire participial phrase applies to, or modifies the first following noun, the word *climber*. It may well be argued that the introductory phrase applies to all the rest of the sentence. We may see this relationship more clearly if we transpose the sentence as follows:

The climber held to the ledge with one hand and tried to free the rope with the other.

Here the coordinate-verb structure requires the reader to hold the meaning of *climber* in abeyance until the second verb *tried* appears. Or if you prefer, it requires him to insert the meaning of *climber* before the word *tried*.

Either way you look at it, the effect of deferral or abeyance is in evidence. Now, how does all of this happen? And if it does, how does anyone but a genius ever learn to read? Fortunately, the speed of electro-chemical nerve impulses through the brain is very high—something like 10 miles per second. When the end of a sentence is reached, the reader's built-in brain computer sorts out the relationships of the word groups and selects the particular meanings which the context requires. To borrow from computer language, all of this sorting and selection may take place on a shared-time basis; that is, with particular tasks being solved on an apparently simultaneous basis. Unless ambiguity has arisen, the reader moves to the next sentence with no apparent pause.

All goes well if there is no ambiguity, but unfortunately English is often unavoidably ambiguous both because of variant word meanings and because of structure. Even without ambiguity, difficulties in structure create reading problems. It is my belief that an understanding of how these structures deliver meaning will greatly assist students in becoming mature readers.

I should like to turn now to the English sentences. I am using the words *kind of meaning* in a special sense. I use them to refer to two broad divisions which will be familiar to you from traditional grammar. For purposes of reading instruction, we may group statements as to whether they report action or attribution. Either they report action or they attribute identity, characteristics, or description to the grammatical subject. The reader who is aware of this distinction has an important tool at his command for sorting out meanings.

This extent is as far as we can go with the traditional grammar in this analysis. It will become clear that many so-called action verbs do not in fact report action at all. Indeed, it is my suggestion that action is reported only by the past tenses of a limited class of verbs and not even by all verbs in this class.

It will be useful to place this analysis of kinds of meanings in a particular framework. The framework is the direction in which thought flows through an English sentence. We tend intuitively to suppose that thought flows constantly and continuously from left to right—the direction in which words are laid down by writers and printers of English. There is nothing in the nature of human intelligence that requires this order. Hebrew, Arabic, and other languages are written and printed in other directions. Yet because we read and write from left to right in English sentences, we tend to suppose that this directional pattern is inherent in the language.

It is important to understand that in a great many English sentences the flow of thought is not simply left to right but is

835.

in fact circular. It is important, for one thing, because of the emphasis on rate of reading that persists not only in schools but in adult reading clinics as well. Let me make this one further distinction. In mature reading the eyes proceed steadily from left to right except for conscious regressions, but the mind does not. This difference is possible again because of the difference between the very high speed of the brain and the relatively low speed of eye muscles.

The prototype of the action sentence is *Tom hit the ball.* The meaning flows or accumulates from left to right. The word *hit* is a so-called action verb in the past tense.

The prototype of the attributive sentence is *Tom is the president.* The verb is a form of *be* and is called a linking verb. Note that the words following the verb refer to the word preceding the verb. The flow of thought is from left to right and back leftwards to the start of the sentence. It is in effect circular. This same phenomenon occurs with all linking verbs such as *look, remain, stay, sound* and with *get* and *keep* when used in certain senses. The meaning delivered in all these sentences is identification, characterization, or description. Or to use our general term, it is attributive.

Now notice an interesting thing. The same effect occurs whenever a form of *be* appears in a verb phrase. It occurs in the progressive tense forms:

Tom *was hurrying.*
The birds *are singing.*

It also occurs in the passive verb form:

The house *is sold.*
The quarterback *was injured.*
The car *had been wrecked.*

In all of these instances, the form of *be* seems to turn the flow of thought back to the beginning of the sentence. The meaning is not one of action but of attribution.

The verb *have* is a troublesome one for linguists. When used alone it is classed with verbs like *hit,* as a so-called action verb. Yet it never refers to an action even in the past tense.

Eve *had* a cold.

The Senator *has had* a change of heart.

These are not reports of action. They are static, descriptive statements.

In a similar way, it can be shown that the present-tense forms of so-called action verbs do not report action but are essentially static and descriptive: *Ice melts. The dogs bark at night.*

Most interesting, perhaps, is the effect of those auxiliary verbs that are called modals. These are the words *can, must, should, dare,* and the like. They always appear with the base form of the verb. Their function is to indicate an attitude, a mood, or a potential. They do not report action but the potential for action. They are genuinely attributive.

The bus *should arrive* at any moment.
Jack *can play* the drums.

What I have been leading up to is this: in our grammatical study of English, we make too much of action. From the standpoint of meaning, action is reported in only a limited number of sentences. In a far greater number, the report is one of description or identification. The meaning is attributive.

I suggest that the traditional grammar analysis is not useful in teaching because it over emphasizes the element of action. It tends therefore to over-emphasize the accumulation of meaning in a straight left-to-right direction. This pattern of delivering meaning occurs only in the relatively small number of sentences that really do report action. In the far greater number of sentences, meaning is attributive and is delivered in a circular manner.

We do a disservice to children when we transfer the traditional grammar analysis to reading, even when the transfer is merely implicit. We give the child a mental set that does not accord with the reality of his future reading experience. It is of course quite possible to teach reading without any reference whatever to the structure of English sentences and the means by which they deliver meaning. But it seems self-evident that an elementary understanding of what is happening in a sentence will enable a reader to deal with it more efficiently.

What are the practical considerations? What can be done to help the child who is learning to read? We would do well at this point to consider how a mature reader operates, for his methods are the goals of reading instruction. To restate more simply, the goal of reading instruc-

836.

tion is to produce mature readers.

It would be neither appropriate nor useful to attempt a complete definition of the mature reader. What we are concerned with here are the strategies he uses to deal with the patterns and structures by which sentences deliver meaning: (1) The mature reader does not expect to read continuously at the same rate. (2) He expects to halt on occasion, to retrace a sentence in his mind, or to reread it. (3) He holds meaning in abeyance until he reaches the end of a sentence. (4) He is alert to cues which distinguish action and attribution. (5) When attribution occurs, he follows the circular pattern in which meaning is presented.

This time is not a proper occasion for laying down a list of specific teaching devices. The most than can be done is to call attention to the general principle that meaning accumulates in a straight left-to-right direction only in action sentences and that meaning is delivered in a circular manner in non-action sentences. The obvious practical step is to call attention of teachers and children to this distinction. The most helpful clues are the verbs and modals as described above; that is, the verb *be* and the verb *have* used alone, and the modals such as *can, could, might,* indicate attribution and make the flow of thought circular.

This understanding of English sentences might conceivably place a powerful tool in the hands of readers. Properly reinforced in the classroom, it could lead children to the goal of mature reading. I believe it is worth serious consideration. But it is only a beginning. Much more lies beyond, for the mature reader must be sharply aware of the basic structures of the sentence and of how they are related to one another.

837.

Vol. 10, 65

269.

333.

# 2. A Comparative Study of Reading Achievement at the Fourth-Grade Level Under Two Methods of Instruction: Modified Linguistic and Traditional Basal

SISTER MARY EDWARD, P.B.V.M.
Clarke College

A MODIFIED linguistic word recognition program had been used by the Detroit parochial schools to reinforce their basal reading instruction for a number of years. The question had frequently been asked, "Has this linguistic approach influenced the reading achievement of its users in any way?"

A study[1] reported by Sister Mary Lauriana, reading coordinator for the Detroit parochial schools, indicated that at the fourth-grade level actual reading achievement had exceeded anticipated achievement at each quartile. This answer seemed quite definite, but other questions remained, for example, "Would these findings stand when the modified linguistic

[1]Sister Mary Lauriana, C.S.S.F., "Actual and Expected Reading Achievement in Detroit." *Catholic Educational Review*, LIX (June, 1961), pp. 305-312.



subjects were compared with children instructed by means of a composite approach alone?"

## Samples

To answer this question two samples of beginning fourth-grade children were selected for a study in September, 1962. The first sample, the control group, consisted of 407 beginning fourth-grade children in ten classrooms randomly chosen from the Dubuque, Iowa, parochial schools (185 boys, 222 girls). The second sample, the experimental group, was made up of 403 beginning fourth-grade children in ten classrooms of the Detroit, Michigan, parochial schools (191 boys, 212 girls). These subjects were matched with the Dubuque sample on socioeconomic status, intelligence, and chronological age.

The Dubuque and the Detroit samples were chosen because both groups had been taught reading throughout the first grades with the same basal reading series, but the Detroit program had been supplemented with a modified linguistic word recognition approach. An objective and subjective evaluation had also indicated that the two samples were nearly equivalent in all factors except their word recognition instructional program.

## Instructional Program

Initial reading was introduced to the control group by means of sight words. As soon as the child had developed a sight vocabulary sufficient for him to discover from these known words the basic elementary word recognition principles, word recognition skills were taught in a systematic and sequential manner. These skills were usually taught following the reading of a story from the basal reader. A separate phonic period was rarely scheduled for the control group.

In the first grade two hours and twenty-five minutes were devoted to reading and the development of word attack skills. The second and third grades spent two hours and ten minutes daily in reading activities.

In the experimental group, after the child had learned the names of the letters of the alphabet, the sequence, the consonant sounds and some sight words, he began to read his preprimer. At this time the vowel sounds were taught, one at a time, and the child was introduced to a "phonics reader" based on Bloomfield's short word and syllable forms. The words with which the child practiced followed a regular phonic pattern, for example, "pan," "man," "tan." There was no blending of isolated consonant and vowel sounds. Rather the combination was presented as a whole word or a syllable. In this way a definite linguistic emphasis was maintained throughout the child's early reading experiences.

For approximately the first seven weeks, the two, one-hour daily reading periods were devoted to word recognition skills. Early in November the children began to spend one of these periods on word attack skills and the other on basal reading. This sixty-sixty balance was maintained throughout the primary grades with the experimental group.

## Instruments

A number of different tests were used to obtain the data for this study. The Silent Reading Diagnostic Tests[2] were used to assess level of performance in word recognition skills. Scores for speed, accuracy, vocabulary, and level of comprehension were obtained from the Gates Reading Survey.[3] Specific comprehension abilities were measured by the Developmental Reading Tests.[4] The Lorge-Thorndike Nonverbal Intelligence Tests[5] and the California Test of Mental Maturity[6] provided the intelligence quotients.

## Purpose

Answers to the following questions were sought in the study: (1) Does the mean reading achievement of beginning fourth-grade children taught with the

[2]Guy L. Bond, Theodore W. Clymer, and Cyril J. Hoyt, *The Developmental Reading Tests, Silent Reading Diagnostic Tests*, Form D-A. Chicago: Lyons and Carnahan, 1955.

[3]Arthur I. Gates, *Gates Reading Survey*, Form M-1. New York: Bureau of Publications, Teachers College, Columbia University, 1958.

[4]Guy L. Bond, Theodore W. Clymer, and Cyril J. Hoyt, *The Developmental Reading Tests*, Form Ir-A. Chicago: Lyons and Carnahan, 1959.

[5]Irving Lorge and Robert L. Thorndike, *The Lorge-Thorndike Intelligence Tests, Nonverbal Battery*, Level 3, Form A. Chicago: Houghton Mifflin Company, 1954.

[6]Elizabeth T. Sullivan, Willis W. Clark and Ernest W. Tiegs, *California Test of Mental Maturity, Short Form*, Elementary. California: California Test Bureau, 1957.

838.

experimental approach differ from that of children instructed with the control method in selected word recognition skills and reading abilities? (2) When subjects are classified according to level of mental ability, do any groups profit more from one method of instruction than from the other?

## Method of Analysis

The analysis of covariance technique was used to investigate the problem concerning the general test performance of boys and girls. Non-verbal intelligence served as the covariate. Information concerning the effects of each method on the reading achievement of the fast learning child (IQ 115 and above), the average child (IQ 95-114), and the slow child (IQ 94 and below) was obtained by establishing the difference between the means for each ability group and each test and analyzing the difference for significance by means of "t" tests. The one per cent and the five per cent levels of significance were used for rejecting the null hypothesis that there was no difference between the two groups in test performance. Boys and girls were studied separately.

## Results

Results indicated that, although both samples performed above the national norms on all reading tests, the boys and girls of the experimental group recognized words in isolation more readily, used context with greater facility, had fewer orientation problems, possessed greater ability to analyze words visually, and had greater phonetic knowledge than boys and girls taught with the control method. There was no significant difference between the two samples in their ability to synthesize words.

The experimental boys and girls read faster and more accurately, had larger vocabularies, comprehended better, and were more able to retain factual information than the control boys and girls. However, when the more complex comprehension abilities of organization and appreciation were examined, no significant differences were found between the two groups.

Children of all mental levels profited from instruction under the experimental method, but those of average and low ability benefited more broadly than children of high mental ability. Girls gained slightly more than boys under the experimental method.

## Hypotheses About Results

That the test performance of the experimental group was significantly superior to that of the control group is a fact. However, the phase of the supplemental word recognition program which was responsible for the superior achievement is still unknown. The following hypotheses are advanced and discussed as possible explanations.

*Hypothesis A*: The difference in the performance of the two groups was due to the modified linguistic approach.

The results of this study showed that children taught with the modified linguistic approach were faster and more accurate readers than the control group. It seems that this facility in reading could be attributed to the mastery of the unit speech patterns taught to the experimental group. However, when one examines these short word and syllable forms, one wonders whether or not the patterns occur frequently enough in reading material to warrant this thinking. Could it be that in using the linguistic materials, the children acquired a technique that gave them greater skill in building words and in taking them apart? In other words, could it not be the technique developed rather than the linguistic materials used that gave greater reading facility to the experimental group?

*Hypothesis B*: The difference between the performance of the two groups resulted from the early learning of the names of the letters of the alphabet, their sequence, and the sounds of the consonants by the experimental group.

Research has shown that the best predictor of reading achievement is the present status of the particular knowledge or skill being predicted. It is also a known fact that the development of the powers of perception does not just happen but results from training. Since beginning reading involves, among other skills, the visual and auditory perception of words, it seems that the reading readiness period should be concerned with developing spe-

cific visual and auditory skills. This kind of training was part of the experimental program. Could this be a reason for the superiority of performance displayed by the experimental group?

*Hypothesis C*: The difference in performance between the two groups was brought about by a more clearly defined and systematic application of the principles of learning in the experimental word recognition program.

The question arises at times whether

TABLE I

RAW SCORE MEANS FOR TESTS OF WORD RECOGNITION SKILLS AND READING ABILITIES FOR BOYS AND GIRLS IN THE EXPERIMENTAL GROUPS AND THE CONTROL GROUPS

| TEST | BOYS | | GIRLS | |
|---|---|---|---|---|
| | Experimental | Control | Experimental | Control |
| *Word Recognition* | | | | |
| Isolation | 49.75 | 45.94 | 52.00 | 48.88 |
| Context | 22.06 | 21.11 | 23.93 | 22.52 |
| Orientation | 20.62 | 19.63 | 21.58 | 21.20 |
| Visual Analysis | 67.30 | 64.86 | 72.04 | 69.13 |
| Phonetic Knowledge | 92.61 | 89.74 | 96.75 | 94.65 |
| Word Synthesis | 13.94 | 14.57 | 16.43 | 16.22 |
| *Gates Reading Survey* | | | | |
| Speed | 16.82 | 14.71 | 19.75 | 17.08 |
| Accuracy | 83.78 | 78.64 | 87.37 | 81.78 |
| Vocabulary | 22.47 | 19.22 | 24.54 | 21.23 |
| Level of Comprehension | 15.64 | 14.35 | 18.53 | 16.98 |
| *Specific Comprehension Abilities* | | | | |
| Factual | 9.95 | 9.09 | 11.65 | 10.90 |
| Organize | 9.73 | 9.65 | 12.33 | 11.90 |
| Appreciate | 7.24 | 7.11 | 8.64 | 8.50 |
| *Lorge-Thorndike I Q* | | | | |
| Nonverbal | 103.72 | 106.22 | 110.59 | 111.39 |

TABLE II

SUMMARY OF F VALUES OF ANALYSIS OF COVARIANCE FOR TESTS OF WORD RECOGNITION SKILLS AND READING ABILITIES FOR BOYS AND GIRLS OF THE DETROIT AND DUBUQUE SCHOOLS

| TEST | BOYS | | GIRLS | |
|---|---|---|---|---|
| | F-VALUE | DECISION | F-VALUE | DECISION |
| *Word Recognition* | | | | |
| Words in Isolation | 32.9149 | *Reject** | 45.5825 | *Reject** |
| Words in Context | 9.0074 | *Reject** | 29.0060 | *Reject** |
| Orientation | 6.5874 | *Reject*** | 5.4737 | *Reject*** |
| Visual Analysis | 12.9538 | *Reject** | 23.3606 | *Reject** |
| Phonetic Knowledge | 7.1644 | *Reject** | 5.8035 | *Reject*** |
| Word Synthesis | .2223 | *Accept* | .8505 | Accept |
| *Gates Reading Survey* | | | | |
| Speed | 18.0163 | *Reject** | 23.4367 | *Reject** |
| Accuracy | 13.2049 | *Reject** | 18.7865 | *Reject** |
| Vocabulary | 29.8616 | *Reject** | 40.5764 | *Reject** |
| Level of comprehension | 8.9926 | *Reject** | 10.3086 | *Reject** |
| *Specific Comprehension Abilities* | | | | |
| Factual | 10.9364 | *Reject** | 9.3876 | *Reject** |
| Organize | 1.2785 | Accept | 2.5537 | Accept |
| Appreciate | 1.0698 | Accept | .5989 | Accept |

*Rejected at .01 level
**Rejected at .05 level

840.

traditional basal programs have integrated reading skills so well that teachers and pupils seem to lose their sense of direction. The experimental approach attempted to avoid this problem by providing a separate daily period for the development of word recognition skills. Daily plans included review of word recognition skills previously taught along with the presentation and application of new skills. Thus goals could be clarified and both teachers and pupils could better discern their progress. It does not seem unreasonable to speculate that this could have been a contributing factor to the superior achievement of the experimental group.

TABLE III

SUMMARY OF "t" VALUES OF TESTS OF SIGNIFICANCE OF DIFFERENCES BETWEEN THE MEANS ON TESTS OF WORD RECOGNITION SKILLS AND READING ABILITIES FOR BOYS AND GIRLS OF HIGH, AVERAGE, AND LOW MENTAL ABILITY IN THE EXPERIMENTAL GROUPS AND IN THE CONTROL GROUPS

| TEST | SEX | HIGH t | HIGH Decision | AVERAGE t | AVERAGE Decision | LOW t | LOW Decision |
|---|---|---|---|---|---|---|---|
| *Word Recognition* | | | | | | | |
| Isolation | Boys | 2.78 | Reject* | 2.78 | Reject* | 3.67 | Reject* |
| | Girls | 2.44 | Reject** | 4.18 | Reject* | 4.69 | Reject* |
| Context | Boys | .30 | Accept | 2.43 | Reject** | 2.61 | Reject** |
| | Girls | 1.65 | Accept | 4.45 | Reject* | 1.54 | Accept |
| Orientation | Boys | −.71 | Accept | 1.95 | Accept | 1.97 | Accept |
| | Girls | .52 | Accept | 1.89 | Accept | 2.02 | Accept |
| Visual Analysis | Boys | 1.66 | Accept | 1.82 | Accept | 5.13 | Reject* |
| | Girls | 2.17 | Reject** | 2.90 | Reject* | 3.54 | Reject* |
| Phonetic Knowledge | Boys | .067 | Accept | 1.82 | Accept | 2.14 | Reject** |
| | Girls | −.03 | Accept | 2.90 | Reject* | 1.56 | Accept |
| Word Synthesis | Boys | −.80 | Accept | −.52 | Accept | .40 | Accept |
| | Girls | −.47 | Accept | 1.29 | Accept | .96 | Accept |
| *Gates Reading Survey* | | | | | | | |
| Speed | Boys | 2.87 | Reject* | 1.79 | Accept | 2.64 | Reject** |
| | Girls | 2.82 | Reject* | 3.29 | Reject* | 1.59 | Accept |
| Accuracy | Boys | .57 | Accept | 2.74 | Reject* | 1.87 | Accept |
| | Girls | 2.35 | Reject** | 3.38 | Reject* | 22.29 | Reject* |
| Vocabulary | Boys | 1.67 | Accept | 4.14 | Reject* | 2.83 | Reject* |
| | Girls | 2.68 | Reject* | 4.74 | Reject* | 4.64 | Reject* |
| Level of Comprehension | Boys | .87 | Accept | 9.94 | Reject* | .029 | Accept |
| | Girls | 1.94 | Accept | 2.29 | Reject** | .99 | Accept |
| *Specific Comprehension* | | | | | | | |
| Factual | Boys | 1.93 | Accept | 1.25 | Accept | 2.57 | Reject** |
| | Girls | .22 | Accept | 2.66 | Reject* | 4.39 | Reject* |
| Organize | Boys | .36 | Accept | −.37 | Accept | 2.39 | Reject** |
| | Girls | 1.06 | Accept | 1.98 | Reject** | −.43 | Accept |
| Appreciate | Boys | 5.04 | Reject* | −.14 | Accept | −.29 | Accept |
| | Girls | −.26 | Accept | .75 | Accept | 1.61 | Accept |

* Rejected at .01 Level ** Rejected at .05 Level
Values preceded by (−) favor the control group.

841.

270.

# SEQUENCE XI LINGUISTICS

## A. UPPER ELEMENTARY LEVEL

### 1. What Linguistics Can and Cannot Say to a Reading Teacher

THEODORE E. GLIM
Palo Alto, California
Unified School District

VIEWING the linguist as a scientist of our language, what information might I, the reading teacher, seek from him? What information, on the other hand, might I, the reading teacher, seek from sources other than that of the linguistic scientist?

There are several areas in which I might seek information accumulated by the linguists. I shall limit this discussion merely to the presentation of some of that information.

#### Symbolic Nature of Speech and Writing

Because of my preoccupation with the written word, I might seek from the linguist the place of the written word in our language. He, in turn, would emphasize the primacy of speech. He would point out to me that language is fashioned out of *sounds* that have relative existence in *time*, whereas writing, which imperfectly represents those sounds, is fashioned out of *shapes* that have relative position in *space*. He would remind me that speech is a symbol of meaning; he would remind me, too, that writing is a symbol of speech and is, consequently, a symbol of a symbol, being twice removed from the meaning which it aims to communicate.

#### Overview of Some Linguistic Signals

Meaning is communicated through sounds or shapes with many accompanying signals. Some of these signals are additional sounds or shapes that show number, such as *s* and *es*; that show time, such as *s, ed, ing*; and that show a modification of meaning or use, such as *ment, ly, ous* at the end of words and *ex, ad, in* at their beginning. Other signals are sound patterns and letter patterns, such as *jump, hump,* and *lump;* function words that relate parts of sentences, such as *by, in, and, when;* word order patterns, such as *John eats, John eats food, John is fat, John is a mountain,* and their expansions, transformations, and inversions; the ups and downs, louds and softs, go aheads and stops in the melody of our language; the many ways in which individuals say words, order sentences, and use vocabulary in their dialect. All of these signals are some of the means for conveyance of thoughts and feelings.

Still limiting this discussion merely to some of the information I might seek from the linguist, let's view those signals against the background of a poem which might be presented in the intermediate grades.

**The Eagle**

**He clasps the crag with crooked hands;**
**Close to the sun in lonely lands,**
**Ring'd with the azure world, he stands.**
**The wrinkled sea beneath him crawls;**
**He watches from his mountain walls,**
**And like a thunderbolt he falls.**

**Alfred Tennyson**

#### Sound and Spelling Patterns; Inflections

The students and I, having read the poem aloud, might attend to Tennyson's repetition of the *k* sound in the words *clasps, crag, crooked, close, wrinkled,* and *crawls.* We might attend, also, to the sound and spelling patterns found in the rhyming words *hands, lands,* and *stands; walls, falls,* and *crawls.* The word *crawls,* although belonging to the same sound pattern as *walls* and *falls,* is of the spelling pattern found in *shawls* and *sprawls.* The other sounds and letters used in the poem also belong to patterns, each aiding greatly in triggering word perception.



842.

### Function Words

The poem contains certain signal or function words that show the various relationships among words in the sentences. The word *the* signals a noun group; it occurs in the poem four times. The preposition *with* shows a relationship of means between *clasps* and *crooked hands*, between *ring'd* and *azure world*. Relationships of place are found in the prepositions *close to*, *in*, *beneath*, and *from*. Relationship of comparison is found in the signal word *like*. The word *and* signals a connection between *watches* and *falls*.

We are so used to these signal words that we are hardly aware of them. There are only a few hundred of such words in our language, says the linguist. They do not seem to increase in number. Yet, we use them over and over to show relationships among the many words that do increase in our language, viz., the nouns, the verbs, the adjectives, and the adverbs.

### Word Order Patterns

The linguist's study of word order patterns tells me not only what the few basic patterns are, such as N-V (*he watches, he stands, he falls, the sea crawls*); N-V-N (*He clasps the crag*); and others, but also how they may be built into longer units, how they may be inverted, how more complex patterns may be produced from the basic ones through the use of function words; and how complex patterns may be transformed into simple, basic ones. His study points to the movability of adverbial words, phrases, and clauses, so that we might readily say:

He clasps the crag with crooked hands.
He clasps with crooked hands the crag.
With crooked hands he clasps the crag.

without altering the meaning. These changes are observable in the lines:

The wrinkled sea beneath him crawls.
Like a thunderbolt he falls.

### Intonation

The oral reading of the poem gives you many signals. Those signals are the melody and rhythm of speech that are found in the variation of emphases put on certain words, in the variations of pitch used, and in the variations of pauses that occurred. The melody of speech flows, moving up and down, down and up, soft and loud, loud and soft, with variant lengths of stops in-between. This intonation is the proper subject matter of linguistics. To the linguist I might turn for his classification of the four pitches, stresses, and junctures of speech, and so realize which of those signals are absent from the song of the written poem.

### Dialects

I shall omit reference to the multivariant dialects of children and how this poem might or might not fit those dialects. Dr. Goodman's presentation which follows will say more on this subject.

### Word Histories

Even beyond the areas mentioned, I might seek out the linguist for words that pattern at the beginning like *wrinkled*. Historically, he might tell me not only of the sound, long lost, that *w* represented, but also the interesting tendency of *wr* words to contain the thread of "twisting." Note such words as *wring, wrestle, wry, wreck, wriggle, wrench, wrap, wretched,* and *wrought*. I might speak of other birds than the eagle, such as the *magpie*. From that word, the linguist might lead me to a family of words that has a fascinating historical development, the words *pie, pied piper,* and *piebald* belonging to that family.

### Other Sources of Information

Within the information accumulated by linguists in their study of language, I might then seek out and test what can be adapted to improve my reading program and what can profitably be included to enlarge upon it. But there are other essentials needed for the teaching of reading beyond the sounds and structure of our language. I, as the reading teacher, am faced with the broad gamut of pupil needs and achievements, of the individual differences found in perception, motivation, convictions, beliefs, values, dignity, integrity, autonomy, and the thinking processes; I am confronted with the variant experiential backgrounds of the children and the divergent rates and ways that they use those backgrounds in learning. For those additional essentials I include with linguistics other interrelated dis-

ciplines, realizing that information from the areas of sociology, psychology, anthropology, and physiology can, too, make me more effective as a teacher of reading.

**Summary**

The linguist has his place in reading as a source of information about such areas as sounds, structure, history, and dialects of our language. Let his offerings be an addendum to the interdisciplinary approach to reading.

844.

271.



# F. RESEARCH REPORTS

## 1. Variation in Syntactical Language Development and Reading Comprehension Achievement of Selected First Grade Children

ROBERT B. RUDDELL
University of California, Berkeley

DURING THE PRE-SCHOOL years the average child's grammatical development increases dramatically from one word utterances at the end of the first year to lexical class substitution in the second year *(15)*, and the mastery of most basic grammatical fundamentals by the fourth year *(3)*. Likewise the vocabulary development increases at an astonishing rate from the minute group of words used by the one year old to many hundreds of words recognized by the average first grader *(12)*. Thus by the time the child enters the first grade, he has achieved a high degree of sophistication in his language development *(13)*.

It must be recognized, however, that a wide range of variability is present within these general research findings. Past research has shown that the language development of children is a function of numerous factors. These include provision for an appropriate language model *(1, 2)*, the opportunity for parent-child interaction *(2, 10)*, dialect differences in the home and school *(1, 8)*, and socio-economic level *(8, 13)*. Francis has theorized that the degree of development of the child's syntactical system is directly related to his success in comprehending language *(4)*. Miller has shown experimentally that an individual must assign a constituent structure to a sentence in order to understand it *(9)*. A child's control over his syntactical language system would thus be expected to be a function of his socio-ethnic environment and closely related to his comprehension and production of oral language.

Past research also indicates that variability in reading comprehension achievement is closely related to oral language development and to the background characteristics of the child *(6, 8, 11, 13)*. The very nature of the writing system results in a more precise, but less redundant medium than does oral language, and it consequently places a greater burden on the reader. The reduced redundancy resulting from the inability of the writer to respond to the reader's question and the lack of supplementary meaning cues (stress, pitch, juncture) in written as compared to oral language demands that the beginning reader possess some understanding of the relationship which exists between written words encountered. It is thus hypothesized that the child who possesses a high degree of control over his syntactical language system would also exhibit greater success in comprehending written material.

### Objectives and Hypotheses

The first objective of the investigation was to study the relationship between children's ability to comprehend and produce selected syntactical items and socio-ethnic classification. A second objective of the study was to explore the relationship between first grade children's control over selected aspects of their syntactical language development and their sentence meaning comprehension, paragraph meaning comprehension and vocabulary achievement.

The following hypotheses guided the planning of the study:

1. Subjects classified in the High Caucasian category will score significantly higher on the syntax test than will subjects classified in the Low Caucasian or Low Negro category.
2. Subjects classified in the Low Caucasian category will score significantly higher on the syntax test than subjects classified in the Low Negro category.
3. An analysis of errors on the syntax test will reveal significant variations in the language comprehension and production of subjects classified in the High Caucasian, Low Caucasian and Low Negro categories.
4. Sentence meaning comprehension, paragraph meaning comprehension, and

845.

vocabulary achievement of first grade children are a function of the control which the children exhibit over designated aspects of their syntactical language system.

## Design and Procedure

The subjects studied in this investigation were selected from twenty-four first grade classrooms representing a wide range of socio-economic levels in the Oakland Unified School District, Oakland, California. One hundred and sixty children were drawn at random from the twenty-four classrooms and categorized into socioeconomic levels on the basis of the Minnesota Scale for Paternal Occupations *(14)*. The subjects were further subdivided into two groups—Caucasian and Negro. Although all criterion measures used in this study were administered to the sample of one hundred and sixty subjects, a smaller stratified sample of thirty subjects was randomly chosen for the purposes of this study. Ten children were randomly selected from each of the following socio-ethnic categories: the High Caucasian category, composed of Caucasian children classified in levels 1 and 2 of the Minnesota Scale; Low Caucasian category, composed of Caucasian children classified in levels 5, 6, and 7 of the Minnesota Scale; Low Negro category, composed of Negro children classified in levels 5, 6, and 7 of the Minnesota Scale. The investigator had originally planned to study a High Negro group which would have represented Negro children classified in levels 1 and 2 of the Minnesota Scale, however, the small number of subjects available in the sample prohibited the development of this category.

During the first month of the school year the Test of Syntax was administered individually to the thirty randomly selected children. This test, originally developed by Fraser, Bellugi, and Brown was slightly modified and extended for use in the study *(5)*.

The following types of grammatical contrasts were evaluated: mass and count noun (a paper/some paper); singular and plural nouns marked by inflections (The boy draws/The boys draw); singular and plural nouns not marked by inflection (The deer runs/The deer run); singular and plural nouns marked by *is* and *are* (The deer is sitting/The deer are sitting); present progressive and past tense (The paint is spilling/The paint spilled); present progressive and future tense (The baby is climbing/The baby will climb); affirmative and negative (The girl is cooking/The girl is not cooking); subject and object in the active voice (The duck pulls the boat/The boat pulls the duck); subject and object in the passive voice (The mommy is kissed by the daddy/The daddy is kissed by the mommy); indirect object and direct object (The girls shows the rabbit the bear/The girl shows the bear the rabbit); singular and plural of third person possessive (their wagon/his wagon); and simple present and future tense (Holds the hammer/will hold the hammer).

The Test of Syntax[1] was used to provide a measure of the children's oral language ability to imitate, comprehend, and produce the grammatical contrasts described above. Each set of grammatical contrasts was presented to the child orally. The child was then asked to relate the appropriate response to first one and then the other of two pictures illustrating the different forms of the contrast.

The item responses were scored by utilizing the "Production" scoring procedure described by Fraser, Bellugi and Brown *(5)*. These data were used in testing hypotheses one, two, and four. An error count based on a classification designed by the investigator was effected for obtaining data used in testing the third hypothesis.

In the last month of the school year, nine months after the Test of Syntax was given, three tests were administered to the thirty children. The first test, the Primary test of Syntax,[2] was developed by the investigator for the purpose of measuring sentence meaning comprehension. This test encompassed written items constructed with vocabulary developed in the early stages in the reading programs used.[3] The specific items were patterned

[1]Reliability coefficient when corrected by the Spearman-Brown Prophecy Formula +.93.
[2]Reliability coefficient when corrected by the Spearman-Brown Prophecy Formula =.93.
[3]Although different reading treatment groups were utilized with this sample and the larger sample it is assumed that the stratified random selection of subjects for this study will equate interferences from varied treatments.

846.

after the Fraser, Bellugi and Brown oral Test of Syntax which has been previously described.

The child was required to select the appropriate form of a written grammatical contrast to match the identical contrast in illustrated form. The second test consisted of the Paragraph Meaning subtest of the *Stanford Achievement Test,* Primary I. This test was utilized in measuring the children's ability to respond to connected discourse by selecting the proper response to a deleted word from four possible items. The third test was the Vocabulary subtest of the *Stanford Achievement Test,* Primary I. This test measures a child's ability to select one of the three responses in relation to an oral context or definition presented by the examiner.

The data for hypotheses one and two were analyzed by using the analysis of variance. If significant effects were found on the F test, then individual comparisons of the means were made by using the Scheffé technique of contrasted means. Hypothesis three was tested by using the Pearson *chi* square technique *(7)*. Individual items were tested for significance and where significant differences were found, the Scheffé technique was used to identify the significant contrasts between the socio-ethnic classifications. The fourth hypothesis of the study was tested by using the Pearson product-moment correlation.

## Findings of the Study

On the basis of the significant F value ($F=4.21$ d.f. $1/27$ $p<.05$), the Scheffé technique was employed to test the contrasts relative to the first hypothesis. The mean contrast between the High Caucasian group and the Low Caucasian group was not found to be significant, although it closely approached the required level ($p=.05$, mean contrast must exceed 13.74). The mean value for the High Caucasian group was found to differ significantly from the Low Negro group ($p=.01$, mean contrast must exceed 18.5). These data are presented in Table 1.

TABLE 1

MEAN VALUES FOR THE SYNTAX SCORES FOR THE SOCIO-ETHNIC CLASSIFICATIONS

| | High Caucasian | Low Caucasian | Low Negro | Classification Contrasts HC-LC | HC-LN | LC-LN |
|---|---|---|---|---|---|---|
| Syntax score | 39.20 | 26.90 | 16.00 | | | |
| Mean diff. | | | | 12.30 | 23.20* | 10.90 |

*Contrast significant at the .01 level (mean difference must exceed 18.50). The null form of the first part of the hypothesis could not be rejected; however, the null form of the second part of the hypothesis stating no difference between the High Caucasian group and the Low Negro group was rejected.

As evidenced in Table 1, no significant difference was found on the syntax variable between the Low Caucasian and the Low Negro categories ($p=.05$, mean contrast must exceed 13.74). The null form of the second hypothesis could thus not be rejected.

The analysis of errors on the Test of Syntax relative to the third hypothesis revealed a number of significant variations in the language control and usage between the socio-ethnic categories of subjects. These data are reported in Table 2.

One of the most frequent difficulties encountered by the Low Caucasian and Low Negro subjects in contrast to the High Caucasian subjects occurred with the use of the subject and verb agreement in the third person singular and plural. The Low Caucasian subjects experienced significantly greater difficulty than the High Caucasian subjects in adding the /s/ or /z/ inflectional endings to the noun head and in omitting the /s/ or /z/ or /əs/ inflections from the verb. The former difficulty did not occur with the Low Negro subjects; however, the difficulty of the latter type was in evidence.

The High and Low Caucasian group had significantly less difficulty with transitive verb agreement, auxiliary verb agreement, and the use of third person possessive pronouns than did Low Negro subjects. The Low Negro group also had significantly greater difficulty in omitting

847.

TABLE 2
COMPREHENSION AND PRODUCTION OF SYNTAX ITEMS FOR ERROR VARIATION IN HIGH CAUCASIAN, LOW CAUCASIAN AND LOW NEGRO SUBJECTS

| Error Type | Chi square value | Proportion value for socio-ethnic classification HC-LC | HC-LN | LC-LN |
|---|---|---|---|---|
| Subject-Verb Agreement | | | | |
| Omits /s/ or /z/ on noun head | 15.79* | .06 | .36* | .30 |
| Adds /s/ or /z/ on noun head | 9.16* | .03* | .01 | .02 |
| Omits /s/ or /z/ or /es/ on verb | 43.83* | .11* | .21* | .10* |
| Uses reverse auxiliary verb form | 12.26* | .03 | .11* | .09* |
| Pronoun substitution— *their* sub. for *his* or *her* (or vice versa) | 21.07* | .15 | .50* | .30* |
| Subject Group | | | | |
| Passive form—agent reversed | 12.16* | .08 | .33* | .25* |
| Predicate Group | | | | |
| Tense—verb form changed from past to pres. prog. or simple pres. | 8.71* | .03 | .03 | .06* |
| Tense—verb form changed from pres. prog or simple pres. to past | 8.34* | .01 | .02* | .02* |
| Error Type | | | | |
| Voice—passive changed to active | 14.22* | .33* | .33* | .00 |
| Auxiliary—omits from sentence | 15.07* | .06* | .09* | .03 |
| Special Additeives | | | | |
| Movable—inserts movable of place | 6.97* | .02 | .03* | .01 |
| Negative—inserts in sentence item | 14.29* | .00 | .02* | .02* |
| Direct object—inserts in sentence item | 10.84* | .05* | .06* | .01 |

*Significant at the .05 level.

the /s/ or /z/ inflectional endings from the noun head than did the High Caucasian group.

The use of the passive voice presented significantly less difficulty for the High Caucasian and Low Caucasian subjects than for the Low Negro subjects. The latter group reversed the agent to a significantly greater extent.

The Low Caucasian and Low Negro subjects had significantly greater difficulty in comprehending items in the passive voice and in omitting auxiliary verbs from the sentence than did the High Caucasian subjects.

The Low Caucasian group had significantly less difficulty than the Low Negro group in comprehending items using the past tense, the present progressive tense and the simple present tense. The Low Negro group also had greater difficulty than the High Caucasian group in comprehending the items using the present progressive or simple present.

The Low Caucasian and Low Negro subjects were found to insert the direct object in simple sentences with significantly greater frequency than High Caucasian subjects. The Low Negro subjects were also found to insert the negative in sentences to a significantly greater extent than either High or Low Caucasian subjects. The High Caucasian subjects inserted movables of place in the sentence response significantly less often than did the Low Negro subjects.

Significant variation was thus evident in the comprehension and production of selected syntactical items for subjects in the different socio-ethnic classifications.

The fourth hypothesis of the study was designed to explore the relationship between the early first grade performance of the subjects on the syntax test and their sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement at the end of grade one. The data from the correlational analysis are presented in Table 3.

Two correlation coefficients were found to be significant for the High Caucasian subjects. These correlations were between the syntax variable and the variables of sentence meaning comprehension and vocabulary achievement and were found to be .60 and .84 respectively.

848.

TABLE 3

CORRELATION COEFFICIENTS BETWEEN SYNTACTICAL LANGUAGE DEVELOPMENT AT THE BEGINNING OF GRADE ONE AND SELECTED LANGUAGE VARIABLES AT THE END OF GRADE ONE FOR HIGH CAUCASIAN, LOW CAUCASIAN AND LOW NEGRO SUBJECTS

| | Subject Category | Sentence Meaning Comprehension | Paragraph Meaning Comprehension | Vocabulary Achievement |
|---|---|---|---|---|
| Syntax Scores: | HC (10) | .60* | .27 | .84* |
| | LC (10) | .07 | .18 | .47 |
| | LN (10) | .01 | —.12 | .29 |
| | TOTAL (30) | .68* | .41* | .67* |

*Significant at the .05 level.

The correlation coefficients for the total sample between the syntax test scores and the scores on sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement were found to be .68, .41, and .67 respectively. The remaining correlation coefficients were found to be comparatively low and were not of sufficient magnitude to reach the level required for significance.

Because of the small sample size these correlational findings can be considered only suggestive in nature. It can be concluded from the total group correlations that children's control over designated aspects of their syntactical language system is significantly related to their sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement. This conclusion, however, cannot be applied to the socio-ethnic subgroups. Only in the High Caucasian group were significant correlations found. The comparatively low and nonsignificant correlation coefficients for the Low Caucasian and Low Negro groups suggest that the syntax variable accounts for little of the variance in the sentence meaning, paragraph meaning, and vocabulary scores. In the High Caucasian group, however, the syntax variable accounts for approximately 36 per cent of the variance in the sentence meaning comprehension scores and approximately 70 per cent of the variance in the vocabulary achievement scores. Additional research is necessary in exploring the causal nature of these relationships.

## Summary and Conclusion

The objectives of this study were first, to study the relationship between children's ability to comprehend and produce selected syntactical items and their socio-ethnic classification, and second, to explore the relationship between first grade children's control over selected aspects of their syntactical language development, measured at the beginning of grade one, and their achievement on the variables of sentence meaning comprehension, paragraph meaning comprehension and vocabulary achievement at the end of grade one.

The following conclusions are based on the findings of the study.

1. The High Caucasian subjects do not demonstrate significantly greater control over the selected aspects of syntactical language development than the Low Caucasian subjects, although the difference closely approached the critical significance value. The High Caucasian subjects demonstrate significantly greater control over the selected aspects of syntactical language development than Low Negro subjects.

2. The Low Caucasian subjects do not demonstrate significantly greater control over the selected aspects of language development than Low Negro subjects.

3. Low Caucasian and Low Negro subjects have greater difficulty than High Caucasian subjects in the comprehension and production of sentences containing noun and verb inflectional endings, and auxiliary verbs. The two former groups of subjects also experience greater difficulty than the latter group in comprehending and producing sentences in the passive voice, and exhibit a greater tendency to insert direct objects in simple subject-verb sentences. Low Negro subjects have greater difficulty than either the High or Low Caucasian subjects in comprehending and producing sentences

containing third person possessive pronouns, and in processing sentences written in the present progressive or simple present tense. The former subjects also have greater difficulty than the Low Caucasian group in comprehending sentences written in the past tense.

4. Sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement are a function of the control which the subjects exhibit over the designated aspects of their syntactical language system. For High Caucasian subjects, the syntax variable accounts for a significant portion of the sentence meaning comprehension and vocabulary achievement variance. For Low Caucasian and Low Negro subjects, however, the syntax variable accounts for a low nonsignificant part of sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement variance.

This study represents an attempt to provide increased insight into language variables of children which may contribute to the improvement of reading achievement. Additional analysis currently in progress with a fivefold larger sample should enable the investigator to support or reject the conclusions of this study with greater certainty.

## REFERENCES


1. Bernstein, Basil. "Language and Social Class," *British Journal of Sociology,* 11 (1960), 271-276.
2. Davis, Edith A. *The Development of Linguistic Skill in Twins, Singletons with Siblings, and Only Children from Ages Five to Ten Years.* Minneapolis: University of Minnesota Press, 1937.
3. Ervin, Susan M. and Miller, Wick R. *Language Development,* The Sixty-second Yearbook of the National Society for the Study of Education, University of Chicago Press, Chicago, Part I, 62:108-143, 1963.
4. Francis, W. N. "Language, Speech, and Writing" (mimeographed manuscript). Bloomington, Indiana: Winter Study Group in Reading, Indiana University, 1963.
5. Fraser, Colin, Bellugi, Ursula, and Brown, Roger. "Control of Grammar in Imitation, Comprehension, and Production," *Journal of Verbal Learning and Verbal Behavior,* 2 (August 1963), 121-135.
6. Gibbons, Helen D. "Reading and Sentence Elements," *Elementary English Review,* 18 (February 1941), 42-46.
7. Hays, William. *Statistics for Psychologists.* New York: Holt, Rinehart and Winston, 1963, 578-614.
8. Loban, Walter D. *The Language of Elementary School Children.* Champaign: National Council of Teachers of English, 1963.
9. Miller, George A. "Some Psychological Studies of Grammar," *American Psychologist,* 17 (November 1962), 748-762.
10. Milner, Esther. "A Study of the Relationship Between Reading Readiness in Grade One School Children and Patterns of Parent-Child Interaction," *Child Development,* 22 (1951), 95-112.
11. Ruddell, Robert B. "The Effect of the Similarity of Oral and Written Patterns of Language Structure on Reading Comprehension," *Elementary English,* 42 (April 1964), 403-410.
12. Smith, Mary K. "Measurement of the Size of General English Vocabulary through the Elementary Grades and High School," *Genetic Psychological Monographs,* 24 (1941), 311-45.
13. Strickland, Ruth G. *The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks, and the Quality of Reading of Selected Children,* Bulletin of the School of Education, Indiana University, Bloomington, Vol. 38, No. 4, July, 1962.
14. University of Minnesota, Institute of Child Welfare, *The Minnesota Scale for Paternal Occupations.* Minneapolis: The Institute, University of Minnesota, 1950.
15. Weir, Ruth. *Language in the Crib.* The Hague: Mouton and Company, 1962.


850.

272.

Vol. 10, 65

308. 11. **Reading Comprehension and Structural Redundancy in Written Material**

ROBERT B. RUDDELL
University of California, Berkeley

RECENT APPLICATIONS from the field of structural linguistics have opened a promising avenue for the study of additional language variables affecting reading comprehension.[1] In addition, recent developments in the area of information theory have shown potential in providing a method of measuring redundancy and in turn difficulty of elementary school reading materials.[2] The purpose of this investigation was to explore the relationship between redundancy of syntactical elements of language structure in written materials and reading comprehension by utilizing recent applications from linguistics and information theory.

Reading research using redundancy measurement has focused on the relationship between redundancy in children's published reading materials and the readability levels of the materials. Carterette and Jones[3,4] reported that letter redundancy in graded readers was greatest in the beginning texts and decreased as the grade level increased. Text difficulty of children's free reading choices as determined by school librarians, has also been shown to be related to the degree of letter redundancy of the materials.[5] Bormuth studied letter redundancy as related to comprehension difficulty but the resulting correlations failed to reach a significant level.[6] He has emphasized that this might have been due to inadequate passage length which could have produced an unreliable estimate of redundancy.

The research reported by Carterette and Jones has thus shown that letter redundancy in children's reading materials is related to the readability level of the reading materials. This investigator was interested in extending the redundancy measure similar to that used by Carterette and Jones to study the relationship between structural redundancy in syntactical elements of language structure and reading comprehension.

## Rationale and Hypothesis

Redundancy of syntactical patterning in

[1]Robert B. Ruddell. "The Effect of the Similarity of Oral and Written Patterns of Language Structure on Reading Comprehension," *Elementary English*, 42 (April, 1965), pp. 403-410.

[2]Edward C. Carterette and Margaret H. Jones. "Statistical Comparison of Two Series of Graded Readers," *American Educational Research Journal*, 2 (January, 1965), pp. 13-18.

[3]Edward C. Carterette and Margaret H. Jones. "Redundancy in Children's Texts," *Science*, 140 (June, 1963), pp. 1309-1311.

[4]Edward C. Carterette and Margaret H. Jones. "Statistical Comparison of Two Series of Graded Readers," *American Educational Research Journal*, 2 (January, 1965), pp. 13-18.

[5]Margaret H. Jones and Edward C. Carterette. "Redundancy in Children's Free-Reading Choices," *Journal of Verbal Learning and Verbal Behavior*, 2 (December, 1963), pp. 489-493.

[6]John R. Bormuth. *Relationships between Selected Language Variables and Comprehension Ability and Difficulty*, Cooperative Research Project No. 2082, United States Office of Education, 1964, 131 pp.

851.

the English language is a function of the frequency of occurence of each structural element and the contextual constraints which operate in the language to produce patterns of structural elements possessing different frequency values.[7] This is to say that the occurrence of one structural element delimits the range of elements following it. For example, the occurrence of a noun group will be followed with greater probability by a verb group than by another noun group. Children apparently have a firm grasp of these patterned sequences of language structure by the time they enter first grade.[8] The restrictions of the first element in a discourse provide the child some expectancies of the elements which follow in the sequence. This structured patterning throughout a message thus lends redundancy to the message. One might expect reading material possessing structural elements which occur with higher frequency and with greater sequential constraint to result in greater redundancy and thus be more easily comprehended than reading material possessing a lower degree of structural redundancy resulting from elements occurring with low frequency and less constraint. It was hypothesized then that the level of reading comprehension is a direct function of the amount of redundancy of syntactical elements used in written materials.

## Methodology

Two reading passages were utilized in testing the hypothesis of the study. These passages were designed by the investigator to provide reading material at two different levels of redundancy. Passage A, the first passage, was prepared by using structural elements in syntactical patterns which had been previously shown to occur with high frequency (range 25-202) in the oral language of fourth grade children.[9] Passage B, the second passage, was constructed by using structural elements in syntactical patterns which had been shown to occur with low emission frequencies (range 2-15) in fourth grade children's oral language.[10] Thus, in the development of Passage A the structural elements in the high frequency patterns were used with greater frequency than in Passage B. The structural elements present in the low frequency patterns were used in the development of Passage B.

The statistical method used in calculating the redundancy of the two reading passages in this study was based on Shannon's[11] mathematical formulation of information theory as derived by Bender and Wolin[12] with adaptation by Carterette and Jones[13]. The notations and formulae used in this study are similar to those used by the latter authors.

Thirteen characters* were used to represent the structural elements present in each reading passage. To compute the redundancy measure of each reading passage it was necessary to construct contingency tables for each passage. The tables expressed the number of times each character was followed immediately by every other character.

The relative sequential constraint** on the second member of a pair of characters when the second member is the last character of a sequence $n$ characters long is designated by $C_n$ and derived by the following formula:

$$C_n = \frac{\sum_{k=o}^{n-1} H_k\,(1:2)}{(H\,(1)} \qquad (1)$$

The numerator, $H_k\,(1:2)$, represents the contingent uncertainty associated with the second character and is refined by:

$$H_k\,(1:2) = H\,(1) - H_v\,(k) \qquad (2)$$

[7]Claude E. Shannon. "Prediction and Entropy of Printed English," *Bell System Technical Journal*, 30 (January, 1951), pp. 50-64.

[8]Ruth G. Strickland. *The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children.* Bulletin of the School of Education, Vol. 38, No. 4, Bloomington, Indiana: Indiana University, 1962, 131 pp.

[9]*Ibid.*, p. 29.

[10]*Ibid.*, p. 29.

[11]Claude E. Shannon. "The Mathematical Theory of Communication," *Bell System Technical Journal*, 27 (1948), pp. 379-423; 623-656.

[12]Arnold Bender and Burton R. Wolin. "Informational Models and Their Uses," *Psychometrika*, 29 (March, 1965), pp. 29-55.

[13]Carterette and Jones, *op. cit.*

*Character key: 1. subject, 2. verb, 2b. passive verb or verb of the *to be* class or copulative verb, 3. indirect object, 4. direct object, 5. predicate nominative, $M_1$. movable of place, $M_2$. movable of manner, $M_3$. movable of time, $M_4$. movable of purpose of cause, $M_5$. preposition plus an indirect object, + a connector, . end sentence marker.

**The relative sequential constraint value multiplied by 100 provides a measure of the percentage of redundancy.

852.

The term found on the immediate right of the equal sign in equation (2) represents the average amount of information in each character and is defined by:

$$H(1) = -\sum_{i=3}^{i=13} P(i) \log P(i) \quad (3)$$

The notation P (i) defines the probability of the *i*th character's occurrence. The value H (1) also defines the denominator in equation (1). The last term in equation (2) defines the Markovian information at the specified lag ($k$). This notation is defined by:

$$H_v(k) = -\sum_i \sum_j P(i)\, P_{ij} \log_2 P_{ij} \quad (4)$$

This value of $H_v$ (k) represents the amount of information that is uniquely contributed by the second member of a pair of characters. Thus, the degree of constraint of the first character on the second, as reflected by the values of $H_k$ (1:2), would increase as this value of $H_v$ (k) decreased. In summation, the $C_2$ value which was calculated from equation (1) provided a measure of the relative sequential constraint on the second member of a pair of characters when the second member was contiguous to the first. The Miller-Madow[14] bias correction for sample size was used to obtain an unbiased estimate of the sequential constraint at lag $k$ or of the value $H_k$ (1:2). The corrected relative sequential constraint value for contiguous structural elements, $C_2$, in Passage A was found to be .645, while the corrected $C_2$ value for Passage B reached the magnitude of .563. These findings are reported in Table 1.

TABLE 1
SEQUENTIAL CONSTRAINT IN READING PASSAGES A AND B

| | Original Value $C_2$ | Corrected Value $C_2$* | H (1) |
|---|---|---|---|
| Passage A | .737 | .645 | 2.94 |
| Passage B | .656 | .563 | 3.32 |

*$C_2$ X 100 provides a measure of the percentage of redundancy.

[14]G. A. Miller and W. G. Madow. "On the Maximum Likelihood Estimate of the Shannon-Weiner Measure of Information," *Operational Applications Laboratory Report*, ARCRC-TR-54-75, 1954.

Past research has indicated that the ratio of relative sequential constraint values for contiguous characters ($C_2$) in reading materials on different grade levels provides a clear indication of the ratio of relative sequential constraint values for the two characters separated by as much as nine characters ($C_{11}$).[15] It was concluded that the sequential constraint values for contiguous structural elements would be sufficient to test the hypothesis of the study.

The data presented in Table 1 indicate that Passage A is 8.2 per cent more redundant than Passage B with the corrected $C_2$ values.

The subject matter content of the two reading passages was controlled by utilizing identical science-oriented topics. The Dale-Chall readability formula[16] was used in controlling the variables of vocabulary difficulty and sentence length of the reading passages and yielded equivalent difficulty values. These data are presented in Table 2.

TABLE 2
READABILITY CONTROL PRESENT IN READING PASSAGES A AND B

| | Number of Words | Words per hundred not on Dale list | Average Sentence Length | Difficulty value |
|---|---|---|---|---|
| Passage A | 762 | 4.60 | 11.55 | 4.92 |
| Passage B | 762 | 3.54 | 14.87 | 4.93 |

Each reading passage was made into a 150-item cloze comprehension test for the purpose of determining the comprehensibility of each passage. This was effected by deleting the fifth word from the beginning of each reading passage, and every fifth running word thereafter throughout each of the 762-word reading passages. A subject responds to cloze test items by attempting to replace appropriate words in the blank spaces which have been used in place of the deleted words.

The cloze comprehension tests were administered to 131 fourth grade subjects who had been randomly selected from a metropolitan school district.

The cloze comprehension tests were

[15]Carterette and Jones, *op. cit.*, p. 15, Table 1.
[16]Edgar Dale and Jeanne S. Chall. "A Formula for Predicting Readability," Educational Research Bulletin, 27 (January, 1948), pp. 11-20, 28.

853.

scored by the synonym count scoring method described in a previous writing by the investigator.[17] This scoring method was used rather than the exact deletion scoring method because previous evidence had indicated that significantly higher reliability coefficients resulted from the synonym count method when a cloze test was made over written material utilizing extremely high frequency patterns of language structure. [18]

Reliability coefficients were calculated by using the split-half method. The coefficients were then corrected for length by using the Spearman-Brown formula. The reliability coefficient for Passage A was found to be .96, while the coefficient for Passage B was .97.

The validity of the cloze tests as measures of paragraph meaning was determined by correlating the scores from each test with the scores from the paragraph meaning section of the Stanford Achievement Test. The latter test had been administered the week preceeding the administration of the cloze tests. The validity coefficient for Passage A reached the magnitude of .72 and the coefficient for Passage B was found to be .78.

The mean values from the comprehension tests, developed from Passage A and Passage B, were tested for a significant difference by using the analysis of variance with a repeated measurement design.

## Findings

The mean values for the comprehension tests from Passage A and Passage B are presented in Table 3.

TABLE 3
MEANS AND STANDARD ERROR OF MEANS FOR TWO READING PASSAGES

| | Mean | Mean S.E. | $C_2$ |
|---|---|---|---|
| Passage A | 57.59 | 1.95 | .645 |
| Passage B | 50.92 | 2.02 | .563 |

The mean comprehension scores of the two reading passages which differed 8.2 per cent in redundancy were found to differ significantly at the .01 level ($F = 59.82$ d.f. 1, 130 $p < .01$).

[17]Robert B. Ruddell. "A Study of the Cloze Comprehension Technique in Relation to Structurally Controlled Reading Material," *International Reading Association Conference Proceedings*, 9:298-303, 1964.
[18]*Ibid.*

These findings indicate that Passage A, possessing greater structural redundancy, was more easily comprehended than Passage B, possessing less structural redundancy. These data suggest that the redundancy of structural elements in reading material constitutes a significant variable of reading comprehension at the fourth grade level.

The findings of this fourth grade study dealing with inter-word constraint provide an interesting contrast to Garner's[19] conclusion from other studies that most of the variance in sequential constraint in adult language can be attributed to intra-word constraint. It may be possible that the inter-word sequential constraint may be more important for children than for adults while intra-word constraint may be of greater significance for adults. This hypothesis deserves further consideration in future research.

## Summary and Conclusion

The purpose of this study was to explore the relationship between the redundancy of syntactical elements of language structure in written materials and reading comprehension. Two reading passages were designed to present fourth-grade readers with two levels of structural redundancy. The vocabulary, sentence length, and subject matter content of the reading material were carefully controlled in each passage. Each reading passage was made into a cloze comprehension test and administered to 131 randomly selected children at the fourth-grade level. The cloze comprehension tests were scored by using the synonym count scoring method. The analysis of variance was used in testing the mean comprehension scores for significant difference.

The findings of the study indicated that Passage A, possessing greater structural redundancy was more easily comprehended than Passage B, possessing less redundancy. Within the limitations of the study it was concluded that reading comprehension is a function of the redundancy of the syntactical elements used in the written materials.

[19]Wendell R. Garner. *Uncertainty and Structure as Psychological Concepts*. John Wiley and Sons, Inc., New York, 1962, pp. 239-242.

273.

Vol. 8, 63



# K. Reading and Linguistics

## 1. Concern for Research on Linguistics and Reading

RUTH G. STRICKLAND

With the expansion of individual and national interest until it spans the globe and includes people who use a vast variety of languages and dialects, Americans are becoming very conscious of the place of language in the interrelationships of men and nations. There is no way to predict how many of the generation of children now in school will need to learn languages that are little known by our citizens in order to do the work they want to do in the world. Not only the Peace Corps, CARE, and other philanthropic enterprises but government, business and industry also need language-trained emissaries to send into many parts of the world. The more all teachers know about language and how it is learned the better prepared children can become for the new role in world affairs which they may be called upon to play.

The sensible point at which to start any study of language is one's own language. For elementary school teachers and children this is not only the medium of daily operation but also a basic segment of curriculum. Children need to improve their control over their own language and also to learn as much as possible about language itself—what it is, how it operates, why there are many languages in the world, and how languages grow and change. National organizations and individual teachers are more and more turning their thoughts in this direction and seeking ways to do better the things we have always done in school and add the new responsibilities of our times.

What children do with their language in the elementary school years and what they can learn to do with it should be of prime concern to all who are interested in education. Yet for many years we have given little attention to how children use their language and even less attention to the relationship of their use of language and the ease with which they learn to read and write. Studies of children's language made more than 30 years ago are still referred to in discussing the way children use language though the contacts with language have expanded enormously through the years as the result of many influences, particularly the mass media.

The need for bringing up to date the available knowledge about children's language has resulted in two major studies of the use of language by children of varying ethnic and cultural backgrounds and in two separated geographic areas. One of these studies is being conducted by Walter Loban of the University of California at Berkeley and the other is our own study at Indiana University. Loban is approaching the completion of a 13-year longitudinal study of the oral language of approximately 200 children whose speech he has recorded each year beginning when the children were in kindergarten. They are now nearly all at the tenth-grade level and he will follow them for two more years. Ours is a horizontal study of nearly 600 children, 100 at each grade level from Grade 1 through Grade 6. Both of these studies have utilized a scheme of analysis devised with the help of a group of linguists.

### A Study of Children's Language

The Indiana University study was designed to analyze the structure of children's language in the first through the sixth grades, to compare it with the structure of the language in the books in which children are taught to read; and to ascertain, at the sixth-grade level, the influence of any apparent differences on the quality of children's reading skill. We were interested in discovering the patterns of syntactic structure used by children in their informal talk and in describing the patterns of subordination and elaboration characteristic of their speech. We wanted to ascertain the extent to which the patterns of structure found in the children's language were related to the variables of age, sex, and intelligence of the children and the socio-economic background and

855.

education of their parents. A major hypothesis of the investigation was that a study of children's speech might offer suggestions for the construction of better material in reading textbooks. A second hypothesis was that the quality of a child's oral reading interpretation and his silent reading comprehension are related to the quality of his oral language.

This was a loosely structured study which involved recording the spoken language of children in the first through the sixth grades in its spontaneous form in free interaction with children and adults, analyzing the language for the types and frequency of occurrence of syntactic structures and analyzing further the amount and kinds of subordination and elaboration which appeared in the utterances. The findings were compared to determine relationship to personal and social variables. Lastly, representative textbook series were searched to ascertain the point at which patterns that were used freely by children began to appear in the readers and the occurrence of these patterns. At the sixth-grade level, the quality of the children's spoken language was compared with the quality of their silent reading comprehension, their oral reading interpretation, and their listening comprehension.

The 575 children in the study were selected by random sampling from the public schools of the Metropolitan School District of Bloomington, Ind. The schools ranged in size from two-room rural schools to fairly large city schools and covered the ethnic and socio-economic range of this mid-country university community.

Following intelligence testing and the obtaining of data from parents and from school records, the children were brought from the classroom to a convenient recording room in groups of two or three. The children were stimulated to talk about themselves, their families, pets, or whatever was of interest at the moment. The recording was continued until each child was talking easily and naturally. The recordings were transcribed by typists and checked for accuracy by the researchers who listened to the tapes as many times as were necessary to divide the material into phonological units based on the children's use of pauses, falling intonation, and meaning.

Twenty-five consecutive phonological units were analyzed for each child and divided into fixed slots and movables. Certain elements in the sentence or phonological units were analyzed on a second level to determine the types of subordination elements which children used as fillers for stationary and movable parts of their sentences. Short utterances were deleted as were elements designated as mazes which were actually sounds or words used to help the speaker get started, hold his listener's attention, or change the direction of his sentence, such as, "Well," "uh, er," "I guess, I guess" or "No, I mean," and the like which are used by speakers of all ages.

Analysis of this large quantity of children's speech appears to warrant several generalizations. Children of all grade levels used a wide range of language patterns and certain of these patterns which recurred with great frequency can be considered the basic building blocks of their language. The children combined these patterns with other less frequently used patterns in a variety of ways. Children at all grade levels could expand and elaborate their sentences through the use of elements of subordination and movables of time, place, manner, and cause. The fillers children employed in filling the slots and movables in their sentences varied considerably though there were no outstanding differences in the fillers used by children of different ages. Significant differences were revealed between the patterns used by children and their intelligence, mental age, occupational status and parental education.

Four sets of widely used reading textbooks were examined to discover which of the language patterns used most frequently by children appeared in a selected sample of reader pages. The sample included the whole of all preprimers and pages from the beginning, middle, and end of all other readers. While this comparison did not produce conclusive evidence, certain points did stand out. The basic subject, verb, object pattern was the only pattern to appear in the samples of practically all of the books. The patterns differed from book to book within the

856.

series as well as from series to series. Patterns of sentence structure appeared to be introduced at random in a haphazard manner. There was no follow-up of a pattern once it was introduced. There appeared to be no scheme for the development of control over sentence structure which paralleled the generally accepted scheme for the development of control over vocabulary.

The process of reading is a process of turning the stimulus of written words back into speech. Words alone do not carry the meaning; it is created by the arrangement of words into patterns. It is quite possible that the teaching of reading could be greatly improved by attention to the relationship between speech and reading.

To learn something of this relationship, comparison was made at the sixth-grade level of the quality of children's speech with their oral reading interpretation, their silent reading and their listening comprehension.[1] It was found that children who ranked high on these variables used more of the common structural patterns of the language than did children who ranked low on these variables. Obviously, much more study is needed in this realm.

## Linguistics and Reading

Linguists are becoming interested in the problems of the elementary school. A conference of nationally recognized linguistic scholars held on the Indiana University campus in January dealt entirely with the problems of teaching children symbol-sound correspondence in the beginning stage of learning to read. The attention that is being directed to the new book by Charles C. Fries[2] is evidence of the widening interest of both linguists and teachers in what linguistics may offer to the teaching of reading. Interest in the 43 Letter Initial Teaching Alphabet devised by Sir James Pitman and John Downing of England is further evidence.

A conference held in May under the auspices of the Modern Language Association of America gave attention to the problem mentioned in the first paragraph of this report. There is great need today for teaching children in the basic schools as much as possible about the nature of language and how to learn it because many of them will be called upon in later years to learn a language quickly in order to work in other parts of the world. Basic linguistic principles can be taught incidentally but systematically if teachers understand language and the history of the development of their own language. This is a frontier which is challenging for all teachers and children.

An outgrowth of our three-year study of children's language was the conviction that the field of linguistics has much to offer for the improvement of the teaching of all aspects of language. During this year, our attention has been centered on a study of the writing of linguists to cull from the mass of available material any ideas, principles, or techniques which could be used or adapted to improve the teaching of reading, spelling, grammar, and composition in the elementary school. The more we have studied the more convinced we have become of two points: first, there is much in the linguists' study of English and other languages which we can use, and second, these ideas must be adapted to the elementary school.

The field of language learning cries for further research of many sorts. The teaching of reading is in special need of fresh thinking and all of the help that scholars in English, linguistics, and psychology can offer.

[1]Eldonna L. Evertts, *An Investigation of the Structure of Children's Oral Language Compared with Silent Reading, Oral Reading, and Listening Comprehension* (Sixth Grade). Doctoral Dissertation, Indiana University, 1961.

[2]Charles C. Fries, *Linguistics and Reading*. New York: Holt, Rinehart and Winston, Inc., 1963.

857.

274. Vol 9, 64

# 2. A Linguistic Approach to Beginning Reading Based Upon Fries' Principles

225

ROSEMARY G. WILSON

WHY LOOK for another method of teaching beginning reading? The answer is quite simple, I think, if your work in this field has always been one



hundred per cent successful, if all the pupils with whom you had personal or more remote contact went through the grades as effective and high achieving readers, and if retarded readers or clinical cases in reading were unknown. The answer in a situation such as this is that there is no need to consider another approach to the teaching of beginning reading. No one argues with success. He accepts it gratefully and continues the kind of program which has proved rewarding.

My own experience, however, has been quite different from this, both as a classroom teacher and as a supervisor of reading in a large city school system. Though I have had my share of success in teaching reading at various grade levels, the question "why" loomed larger and larger as the years went by about those children whom no teachers seemed to be able to reach effectively. The question reached gigantic proportions indeed when, as a supervisor on a city-wide basis, I began to get a true picture of the scope of the "reading problem" particularly at the junior and senior high school level. Just at the point when it seemed logical to assume that we would be reaping the benefits of the reading program of the elementary years, we were presented with the discouraging prospect of hundreds of retarded readers, some of whom might have to start almost at the beginning in reading while others would take the easy way out as drop-outs and chronic truants. Coupled with this problem were the reports coming from our own public schools' Reading Clinic which indicated, along with many other deficiencies, an almost total lack of competence in word attack, particularly in the area of phonetic analysis. It seemed obvious because of these situations that a critical appraisal of beginning reading was the logical place to start to lay plans for a preventive program. To condense several years of close observation of techniques at this level into a brief statement is difficult and involves the danger of over-simplification. However, it should be sufficient for our purpose here to say that many grave questions were raised in my mind concerning the readiness activities and the all-important point at which these merge into the introduction of formal reading. I was dis-

859.

turbed by a vagueness in the minds of many teachers about this crucial period with the result that a few children were rushed headlong into books but many, many more were spending protracted periods of time in readiness activities of doubtful value. Added to this was the fact that the same general readiness and beginning reading program was being used with children from secure homes of educated parents and those suffering from the acute cultural and linguistic deprivation characteristic of certain areas of every large city. These and other factors too numerous to mention seemed to demand careful appraisal and the best thinking of which we were capable.

During this period I had become increasingly interested in the field of structural linguistics and its application to the teaching of the language arts. The articles on "Linguistics and Reading" by Leonard Bloomfield which had originally appeared in 1942 in *Elementary English,* a meeting at NCTE in St. Louis in 1956 at which Dr. Charles Fries first presented his ideas on the subject, some of the work of Henry Lee Smith including his film on "Linguistics and Reading," and other factors began to furnish some guide lines for making practical applications of these theories to classroom practice. Finally, with the publication of Fries' book *Linguistics and Reading* in 1963, there was ample background for launching an experimental program.

It was necessary, however, for Mrs. Mildred Rudolph, supervisor of our experimental classes, and me to construct and write materials for use with the children since no books were available that met our needs. This effort has resulted in the publication of an alphabet book, six readers, and six practice books. Two additional readers are in preparation and will complete the eight book basic series we feel that we need to complete this phase of the language arts program. We were most fortunate, also, to have Dr. and Mrs. Fries join with us in working on these materials based on the principles described in detail in Dr. Fries' book.

The first phase of this reading program, comparable to the pre-reading stage of traditional approaches, is devoted to the direct teaching of the alphabet. We have described this in our foreward to *My Alphabet Book* as follows:

**Why Teach the Alphabet?**

This alphabet book is designed to initiate your program of reading instruction in the way which leads most directly into the reading process itself. It provides (with the supplementary activities suggested) the most meaningful kind of prereading or readiness activity for children of all levels of intellectual, physical, and social maturity. It was designed with the following purposes in mind:

1. To teach children the names of the letters of the alphabet
2. To have children acquire mastery and instant recognition of both capital and lower case letters
3. To afford the best kind of material for training in visual discrimination
4. To provide many opportunities for practice in left to right progression
5. To teach the sequence of letters in the alphabet
6. To provide children with a valuable referrent for future use in word recognition and word attack
7. To lay the groundwork for an understanding of the alphabetic principle upon which our written language is based

For a detailed discussion of the alphabet and its relationship to reading, I would refer you to Chapter Five of Dr. Fries' book. In addition, to obtain a point of view concerning the teaching of the alphabet different from that expressed by a linguist, I recommend the chapter in the Sixtieth Yearbook of the NSSE written by Durrell and Nicholson entitled "Pre-school and Kindergarten Experience."

The program itself in the beginning or transfer stage and the materials constructed to implement it follow closely the following principles of Dr. Fries:

1. Learning to read must begin with and build upon the language control already achieved by the pupils.
2. Materials prepared for teaching children to read, therefore, should contain only the language already controlled by the pupils.
3. Contrast and especially minimum contrast is basic in this teaching method since all the significant matters of language are matters of contrast.
4. Introduction of words in the readers follows the three major spelling patterns of English as outlined by Fries, namely,

859.

the consonant-vowel-consonant combinations, the words ending in "silent *e*," words containing vowel digraphs.
5. Reading is developed from the beginning as a means of acquiring meanings, not only the meanings of separate words, but these meaningful words always in sentences, and these sentences in sequences of small units with the cumulative meanings of connected discourse.
6. Pictures are eliminated from the readers themselves and are used in the practice books to check pupils' comprehension and correctness of reading.

Encouraged by the success of our experimental classes of the last two years, the program will be expanded gradually in the future. In addition to the work in first and second grade groups, this linguistic approach is being tried in classes of retarded educable children, partially sighted children, emotionally disturbed pupils, upper grade classes of retarded readers, and Reading Clinic cases representing all levels of elementary and secondary schools.

In summary, let me list some of the pre-requisites and requisites for embarking upon a program such as this:

1. A desire to do a better and more effective job in the teaching of beginning reading
2. A supervisor who believes in the program, is enthusiastic, and has a good background in classroom work at the primary level
3. Materials in ample supply since many children once they really understand the system use up material very rapidly
4. A principal who is interested and will lend active support to the program and encouragement to the teacher
5. A teacher who is willing to look forward eagerly to the new work and not back regretfully at the techniques she is leaving behind

And so we end with the teacher, the one who really determines the success or failure of all educational programs. Administrators, supervisors, and teachers, themselves, would probably agree with the ideas expressed by Hullfish and Smith in their book *Reflected Thinking: the Method of Education* when they say, "The point of attack in bringing about a significant reconstruction of education—in the classroom, at the level where mind meets mind—is the reconstruction of the teacher. It is this reconstruction that is essential for the creation of a reflective learning atmophere. What finally counts in any reorganization of the curriculum, in short, is the reconstruction of the teacher."

860.

275.

## C2. CHARACTERISTICS OF CULTURALLY DEPRIVED

grades 1 - 12.

### 1. Socio-Economic Differences in Reading Interests

342.

ELIZABETH MARTIN ANTLEY
University of Southern Mississippi
and ANN L. FLUITT
Louisiana State University
in New Orleans

TODAY, through mounting concern for the culturally different, there are many more generalizations being made about the deprived than specifics about them.

Society's culturally disadvantaged child is in danger of becoming a "cause"—a "cause" without unique personality, without distinguishing warmth, without individuality. A "cause" can become so generalized that it becomes abstract. So abstract, in fact, that when the educator meets a living-breathing part of that cause, recognition may fail to take place. This omission must not happen, for in education lies the real hope for a better world.

"I wish they knew how it feels being me," (a plea from a ninth-grade Negro boy who lives every day of his life in a poverty few of us could endure) says very well the reason for this research study.

We need much more personal information about the reading abilities, habits, and interests of this significant group. Marjorie Smiley has pointed out that despite extensive studies of sex- and age-related reading interests, almost nothing is known about the relation of these interests to children's social-class origins *(1)*.

In planning our research, it appeared appropriate for us to seek information in response to the following question about reading interests: What are the types of stories preferred by disadvantaged boys and girls at different grade levels?

Because reading interests often develop from general interests learned through environmental influences, the following questions were also included:

1. What are the major free-time activities of the deprived youngster?
2. What are the favorite television programs of the deprived, and what is the relationship between these programs and reading interests?
3. What are some of their attitudes and expressed wishes toward their parents?
4. To what types of careers do these youngsters aspire?

#### Research Procedure

In the late spring of 1965 two interest inventories were developed by the researchers: one for grades one through three and the second for grades four through twelve. These two inventories were administered by the faculty of a Negro school with an enrollment of 1600 disadvantaged students in grades one through twelve in one of the parishes in the New Orleans' metropolitan area. In grades one through three the teachers recorded the students' replies without prompting. In grades four through twelve the students wrote their own responses.

#### Results

In view of the limited size of the various age and grade groups the following data should be viewed as preliminary and should be subjected to further study.

I. *Story Preference at Different Grade Levels*

In grades one and two, in response to the item "Three Kinds of Stories I Like Read to Me," boys and girls were quite similar in their responses. As first choice, both boys and girls identified, by title, books which the researchers found to be the pupils' basal readers. Both boy and girl first graders ranked animal stories as second choice and make-believe as their third.

Second-grade boys and girls identified make-believe as their second preference with animals as their third choice.

861.

In the third grade, boys and girls begin to evidence different interests. The boys ranked animal stories first, make-believe second, and cowboy stories third. The girls placed make-believe first, animal stories second, and adventure third.

In grades four through twelve the students were asked to mark an "L" in front of the kinds of stories they liked and a "D" in front of the kinds that they disliked. The following categories were offered to them: science, love, how to make things, nature, sports, crime, war, spy, travel, history, murder, romance, adventure, and cowboy.

Preferences evidenced by the different grade levels indicate that after the fourth grade there are major differences in the story preferences of boys and girls with one area of exception: adventure stories ranked high with both boys and girls in grades six through eleven.

Boys in grades four and five preferred cowboy stories first; science second, and war, how to make things, and sports third.

Sixth-grade boys had the following interests: adventure and sports ranked first; cowboy stories, second; and war stories, third.

Girls in grades four and five begin to show greater differences of interest. Fourth-grade girls agreed with the boys on their first choice of cowboy stories; but, fifth-grade girls preferred adventure stories to other types. Ranked second by the girls in both grades were history and how to make things, with agreement on travel as third choice.

Sixth-grade girls rated history as first preferred, with adventure second, and science third.

Seventh- and eighth-grade boys had similar interests and likewise seventh- and eighth-grade girls. Seventh-grade boys ranked cowboy stories first, while eighth-grade boys preferred sports. Boys in both grades, however, ranked war stories second and science third. Seventh- and eighth-grade girls ranked love stories first, (with eighth-grade girls also ranking history first). Second choice for both grades was romance, with adventure stories in third position.

Ninth-grade boys appeared somewhat different in their expressed interest from the grades which preceded and followed them. They tied adventure and history in first place, science and sports in second place, and cowboy stories in third place.

Ninth-grade girls reflected this same difference. They ranked science first, adventure second, and romance and history third.

Tenth-, eleventh-, and twelfth-grade boys were quite similar in reading interests. Boys in all three grades ranked sports first and war stories second; different grades mentioned science, how to make things, history, and adventure for the third position.

Tenth-, eleventh-, and twelfth-grade girls showed more variability of preference. Tenth- and eleventh-grade girls ranked romance first. Twelfth-grade girls placed romance in second place. Tenth and twelfth graders also ranked love stories in first place with eleventh graders placing love stories third. Holding the second position for tenth-grade girls was adventure with history for the eleventh. Ranked in the third position by tenth graders was history. Eleventh- and twelfth-grade girls agree on ranking nature stories third, with eleventh graders also tying in love stories for the third spot. An overall pattern for the girls in the three grades placed romance and adventure in first place, love in second, and history and nature in third.

It is interesting to note that throughout grades four through twelve for both boys and girls an interest breadth of six categories was manifested.

Ranking the frequency of listing in the top three positions, the story categories were identified in the following preference order: adventure, first; history and science, second; cowboy, war, and sports, third; romance and love, fourth; travel, nature, and how to make things, fifth. Murder stories came into the top three ratings only once (third place by eighth-grade girls). The categories of crime and spy stories were not placed in the top three by either sex or any grade.

### II. *Major Free-Time Activities*

A total of forty different activities was listed by the pupils in grades one through twelve. The two most frequently mentioned activities throughout the grades by boys and girls alike were playing ball and

862

watching television. Interest in television became pronounced at grade two. Housework, including such tasks as cleaning, washing clothes, ironing, and sweeping, was frequently mentioned from grades one through eight for both boys and girls, with heaviest emphasis among fourth-grade girls.

The listing of school work as an activity did not appear until grade three but was mentioned equally then by both boys and girls. Fourth-, seventh-, and ninth-grade boys and girls also emphasized school work.

Mentioned with closely matched frequency were the activities of reading, dancing, making clothes, swimming, playing phonograph records, and cooking. Reading became pronounced at grade seven for both boys and girls and continued to be important through grade twelve. Dancing was of great interest to the girls from grade seven on, but the boys did not evidence this interest until grade nine and then always to a lesser degree. Girls in grade seven frequently mentioned making clothes and showed consistent interest in this area throughout the remainder of the grades. Swimming was listed often by both boys and girls in grade six and remained a popular activity through grade twelve. The playing of phonograph records became popular with the eighth-grade girls and continued as a popular pastime for the girls through grade twelve. Throughout the grades girls listed more different things that they liked to do than did the boys.

### III. *Favorite Television Programs and Their Relationships with Reading Interests*

The surprising number of ninety-four television programs was identified as favorites by the children in the study. While there was much individual variability, interests tended to cluster around certain types of programs. A transition appears to take place in the upper-elementary and junior high school years. From grade four through eight there is a gradual broadening of interest; from ninth grade through grade twelve there is a narrowing of interest. By categories, ranked in order of preference, grades one through three prefer cartoons, cowboy (Roy Rogers), make-believe (Superman and Hercules), and science fiction. Grades four through six like cartoons, science fiction, movies, and cowboy programs.

Grades seven through nine prefer twist programs (Shindig), movies, science fiction, crime (The Fugitive), cartoons, spy (The Man From UNCLE), soap operas (As The World Turns), and drama (Peyton Place).

Grades ten through twelve watch most often twist programs (Shindig), drama (Peyton Place), crime (The Fugitive), and spy (The Man From UNCLE).

The relationship between television preferences and reading interests is a moderately positive one at the primary level. The television and reading interests of the middle grades are likewise similar; however, as one moves into the junior high school years the positive relationship does not hold. In the final years of schooling, the relationship moves again toward the positive.

### IV. *Attitudes and Expressed Wishes Towards Parents*

In response to the open-ended item "I wish my parents knew," students in grades four through twelve offered replies which contained the following major strands of ideas: . . . how I am doing in school; . . . what is going on in the world; . . . how to help me with my school work; . . . how I like to read; . . . knew me and understood me better; and . . . how much I love them.

### V. *Occupational Interests*

The students in grades one through twelve identified a total of 118 jobs or occupations which they would like to enter when they have finished school. The occupational aspirations reflected a rather surprising breadth of knowledge about the world. The occupations they listed ranged from car washer to literary critic. The most frequently and consistently named occupation by both boys and girls throughout all of the grades was that of teacher. Following in order of frequency of listing came nurse, doctor, secretary, soldier, scientist, and ball player. Throughout the listings the impression was left that the youngsters had a rather realistic outlook of their future in present-day society. Many replies identified the job and followed it with the comment, "I probably won't make it though." Particularly was this statement true of the professions that society places great value on, such as those of scientist and doctor. Realism was further revealed through the fact that the majority of the youngsters listed teaching. For the Negro in the South teaching has been a realistic goal and status position for many years.

### Recommendations

It is, therefore, our recommendation that further research be conducted in this very challenging area of reading interests and environmental experiences of the disadvantaged. Some of the data of this study—such as the reading interests of primary children and the facts that girls expressed wider interests in reading and activities than did the boys and that there is a degree of sophistication about various professions—does not agree with findings in the field regarding other socio-economic levels. Further consideration might be given also to the disadvantaged in different regions of our country. It is conceivable also that further differences exist even in the disadvantaged.

### REFERENCE

1. Jewett, Arno; Mersand, Joseph; and Gunderson, Doris V. (Eds.), *Improving English Skills of Culturally Different Youth in Large Cities*. Washington, D.C.: U.S. Office of Education, 1964.

276.

Vol. 9, 64

# SEQUENCE VIII TEACHING READING TO THE DISADVANTAGED

## A. ELEMENTARY SCHOOL

### 1. Reading in a Compensatory Education Program

MILLARD H. BLACK

EDUCATORS are confronted by a variety of factors in seeking to assess the causes of cultural disadvantage: the value which the family and community place on education; the stability of the home and the security it provides in times of stress and failure; the types of communication patterns within the home. These and many more are present in every discussion of the education of the disadvantaged. Every urban school system is attempting to solve, in cooperation with other governmental and social agencies, the problems of cultural and educational disadvantage.

#### Experimental Procedures

Numerous experiments in educating the culturally or educationally disadvantaged are now being conducted in the Los Angeles City School District. These efforts are characterized, all or in part, by administrative provision making possible some of these experiments; instructional adaptations in specific classes; and in-service programs which support these experiments.

#### Administrative Provision

The first of two special programs which are now operational is entitled "The Compensatory Education Program in the Elementary Schools." Functioning in 79 of our 425 schools, it involves the use of one or two extra teachers in each school, who may be assigned to (1) reduce the pupil-teacher ratio in the primary grades; (2) establish a class to teach English to non-English speaking pupils; or (3) provide additional remedial reading classes in the particular school.

A second experiment, which has been described as "The Extended School Day Program," is being conducted in 28 schools. Involving instruction after the regular school day, this program provides help of two kinds: (1) a block of 20 hours per week of supplementary teaching time and (2) 12 hours per week of student aide time to assist the teachers. The student aides are locally recruited junior college students or high school seniors. This program is designed to increase the opportunity for the culturally disadvantaged child to succeed in school.

A third program now in the planning stage is known as "A School-Community Opportunity Project in Education." This projected study is related directly to the development of reading skills. It will include in-service education to familiarize teachers with the background and needs of pupils and to help them adapt and develop instructional techniques and materials. In addition, the experiment will introduce organizational changes which will provide pre-school programs to furnish developmental and school-readiness experiences for pupils of pre-kindergarten age; junior first-grade programs; ungraded primary classes for grades one, two, and three; class-size reduction; reading improvement programs for pupils who are either retarded or advanced in reading; a language improvement program to help reduce pupil use of excessive regional speech and ungrammatical speech; a program for the development of communication skills in the non-English speaking pupil; and extended school library facilities.[1]

[1]Los Angeles City Schools. "A School-Community Opportunity Project in Education," 1963, pp. 8-16a.



161. THE DISAI

#### Instructional Adaptations

Many activities are being undertaken experimentally to develop reading skill and appreciation of literature among the culturally disadvantaged. Even the more novel of these are adaptations of familiar techniques. They include activities which involve:

*Remedial Reading*

*Developmental Reading*

- Semi-individualized reading
- Using a research program to stimulate reading
- Combining use of tape-recorder and reading textbooks
- Utilizing a basal reader approach, in which the use of an activity book and homework assignments are emphasized
- Presenting books reviews

*Use of Trade Books to Stimulate Oral Expression*

*Knowledge and Appreciation of Literature*

#### In-Service Training

School personnel can develop understanding and positive attitudes toward their disadvantaged pupils and be motivated to assist them further through a study of the sociological and psychological characteristics of the residents in a particular community. For example, one group of Los Angeles elementary school administrators and teachers worked with a sociologist from a local university and with leaders in the Mexican-American community to improve the instructional program. Additional classes with enlarged content are being offered, and will continue to focus on the needs of Mexican-American pupils.

Two additional in-service training projects have been developed to assist the teacher of minority groups. One of these is a course designed to help in the teaching of English as a second language, using a linguist from a local state college as a leader. A second phase of this course will have as its goal the development of instructional material. A third type of in-service training course helps teachers to understand the role played by minority groups in the growth of the United States.

864.

277. Vol. 10, 1965 **B. UPPER ELEMENTARY LEVEL** 256.

## 1. Learning Problems in Cultural Deprivation

THOMAS J. EDWARDS
Science Research Associates
Chicago, Illinois

THE RECENT shift of educational concern to the problems of the culturally disadvantaged requires a precise analysis of the specific deficiencies manifested by the disadvantaged learner. If he is deprived early of certain experiences or learnings which are normally and routinely enjoyed by more advantaged learners, exactly what deficiencies result? And how do these deficiencies manifest themselves and militate against later school learning or general life adjustment?

Of equal cogency is the problem of the psycho-social adjustment of the culturally deprived learner: How has his minority status affected his self-image? Is he saddled with attitudinal problems which have deleterious effects upon his learning and overall life adjustment?



To these problems this paper is addressed within the context of the vital role which the teacher or mediator must play in reversing the debilitating effects of cultural deprivation, almost irrespective of age. This is true because at every level —pre-school, primary, intermediate, predropout, dropout or adult functionally illiterate—we must see the syndrome of cultural deprivation as a mobile monolith that tends to move essentially unchanged up the chronological age scale. Thus we find at practically every age level the manifestations of virtually the same symptoms.

### Basic Learning Deficiencies

There are a number of important learnings which are prerequisite to successful school achievement. The normally advantaged child receives sensory and intellectual stimulation from birth which provides these prerequisite learnings. The culturally disadvantaged child, on the other hand, is either deprived of these learnings or must revise markedly many earlier learnings that interfere later with successful school achievement. The following points must therefore be considered in programs designed to reverse the effects of this disadvantage.

1. *Restricted Experiential-Conceptual-Informational Background.* Characteristically, the disadvantaged child moves within a very small geographical area near his home. This tends, of course, to limit quite severely his contact with the "outside world" and, thereby, robs him of vital first-hand experiences necessary to expand his fund of concepts and general information. In addition, he generally does not have anyone at hand to provide the mediation essential to help him carve meaningful concepts even from those experiences which he has had.

Much of the curricular content to which children are exposed is based on the assumption that most of them have seen and understood certain objects and processes prior to their entry into first grade. *The disadvantaged child from a severely restricted experiential background, however, will not have the conceptual foundation upon which to build this superstructure of new concepts which are imposed on him in school.* He, therefore, experiences confusion and fails to learn while other children are easily and happily expanding their repertoire of information. And thus the achievement gap between him and more advantaged children widens.

Reading ability is also affected by a meagre background of experience, concepts, and general information. One very fundamental aspect of the reading process is translating printed words into their spoken counterparts and knowing what they mean; that is, what *concepts* they represent. As the conceptually poverty-stricken reader moves down the printed page, he may unlock word *sounds* successfully, but ultimately reaps a harvest of meaningless nonsense.

Also in the reading process the deciphering of unfamiliar or irregular word forms frequently depends upon the use of context clues to suggest what a printed word probably "says." The effective use of context for this purpose, in turn, depends upon one's having previous relevant experience to bring to bear in interpreting the context. This, of course, the culturally deprived student is not likely to have. And this experiential deficit will also militate against his grasping more complex global concepts contained in sentences and longer selections.

It is, therefore, absolutely imperative that anyone responsible for a good educational program for culturally disadvantaged learners first understand that these learners have severely debilitating experiential-conceptual-information deficits, that they know that these deficits are *not* a reflection of any innate mental deficiency, and then that they take measures *constantly* throughout the learning program to literally pump in meaningful experiences and mediate effectively to help permanent, well understood concepts evolve from these experiences.

2. *Auditory Discrimination.* Auditory discrimination is a learned ability that develops very early during the pre-school experiences of the normally advantaged child. He has adequate speech models and, in addition, conscientious parents mediate constantly to correct his misperceptions of speech sounds and his pronunciation errors. In a majority of disadvantaged communities, however, language precision is not given much attention and dialectical

865.

pronunciations are given to many speech sounds which are at considerable variance with the standard speech of their regions.

Auditory discrimination ability correlates significantly with success in beginning reading. The probable reason for this is that a child must be familiar with speech *sounds* before he can master the *symbols* that are used to represent these speech sounds on the printed page. Hence, inadequately developed auditory discrimination undoubtedly accounts for much of the difficulty that culturally disadvantaged children experience with phonics in beginning reading.

Lack of adequate auditory discrimination ability also penalizes the child in listening situations. Much learning takes place through listening and if words are misperceived or confused with similar sounding words, there is likely to be inaccurate listening comprehension.

In order to provide the culturally disadvantaged learner with this essential prerequisite to success in both reading and listening in the classroom, it is important that he be helped to develop careful auditory discrimination ability. He must be literally *immersed* in the speech sounds that he is to acquire. He needs to imitate adequate speech models and be assisted when speech sounds are not perceived or reproduced correctly.

3. *Vocabulary Expansion.* The importance of precision in the knowledge of word meanings is rather apparent as it relates both to school success and to effective communication in general. In the *receptive* areas of communication—listening and reading—a person is severely handicapped if he is confronted with many unfamiliar words that are crucial in conveying meaning. Similarly, in the *expressive* areas—speaking and writing—meaning may not be communicated with clarity and precision if the communicator has a meagre vocabulary.

The vocabulary of the culturally disadvantaged learner is likely to be restricted because he is encapsuled in an environment that is linguistically isolated. If he is to operate effectively in the linguistic world beyond his narrow environment, he must experience intensive immersion in words in a variety of meaningful contexts. And it is one of the very important mediating functions in the disadvantaged student's program to supply new words and insure precise perception of the sounds and knowledge of their meanings as more and more experiences and concepts are being provided.

4. *Oral Language Fluency.* The oral language of the culturally disadvantaged student is likely to be fluent when he is speaking his *own* native dialect. However, his attempts at fluency in "middle-class" English are likely to be abortive as he struggles for correct constructions or for precise words. Yet, he needs fluency in this somewhat alien tongue if he is to move comfortably outside of his ghetto.

Assistance provided to help him make this transition from his native dialect must be given with extreme care. Initially, he should be encouraged to speak freely and spontaneously in familiar topical areas *in his own dialect.* Attempts to change his patterns of speech will stultify his spontaneity if imposed too soon or with any derision or rejection of his former language. Eventually, however, he will begin to make this transition as he tries to imitate the language of his instructor, as he memorizes poems or lines from plays, as he listens to stories, or as he learns songs. Often, too, the instructor can listen to his comments and then paraphrase them back in more standard form without drawing special attention to the difference. Specially designed exercises should be created for memorization that have high interest value and which purport to teach those syntactical patterns or sentence constructions which the culturally disadvantaged student tends to say differently.

5. *Reasoning Ability.* The normal mediation provided by the parents of advantaged students and the fairly constant verbal interaction which they experience with their peers and siblings stimulates logical thinking and reasoning ability. Problems are often contrived for them to solve, either situational or verbal. This is not true, however, in the case of the disadvantaged student. He is, therefore, quite likely to flounder in the numerous kinds of problem-solving situations constantly presented by school and life in general.

Every opportunity should be seized in

866.

the disadvantaged learner's program to stimulate enthusiastic and effective attacks on a variety of problems. Formal logic (induction, deduction, etc.) of various types should be woven into the program at every appropriate juncture.

## Psycho-Social Adjustment Needs

The conditions which deny the disadvantaged learner the prerequisites important to school success tend also to present other problems involving his general psychological and social adjustment. The following are significant areas for consideration in planning the psycho-social environment of the disadvantaged learner in attempting to forestall or reverse the negative effects of this disadvantage.

1. *Achievement Expectancy.* It is crucial that any learner view the probability of his success with optimism, since a defeatist attitude frequently accounts for failure. Because this assumption of probable success is generally born of *experience with success,* it is essential to provide the disadvantaged learner with success-yielding challenges. Such a balanced diet of challenges and successes should carry over to many learning situations so that learning *per se* will carry its own intrinsic motivations.

2. *Attitude of Inquiry.* The earlier natural attitude of inquiry is likely to diminish later for a student who has had a long history of failure; yet, it can be rekindled if the learning situation is stimulating enough. This involves, among other techniques, the very skillful use of questions to generate and direct the learner's pursuit of understandings. Such questioning should be challenging, but should also be within the conceptual and reasoning grasp of the student. In addition, spontaneous questioning on the part of the learner himself should be encouraged and should be satisfied by explanations or by his being helped to discover the answers himself.

3. *Sense of Personal Worth.* Neglect of a child's personal, social, and intellectual needs is often characteristic of the depressed environment that spawns generalized deprivation. An effective program for a student who comes from this type of environment should provide the kind of peer-group interaction that will enable the learner to develop the healthy self-image that comes from acceptance. Also, the mediator working with such students should recognize his own role in assisting the development of ego strength by encouragement and praise and also by creating a learning environment in which there is adequate challenge coupled with success and recognition of achievement.

4. *Level of Aspiration.* Progress in learning specific school oriented tasks and in achieving general life-adjustment aspirations is contingent upon goal setting which is simultaneously challenging and realistic. This goal-setting orientation is not characteristic of the culturally disadvantaged child who has had little experience with success, who has a vague sense of futurity, and who has come to feel essentially powerless to command any control over his destiny.

It is important, therefore, that the mediator in a special program for this kind of child help him to learn to set goals that are within his grasp, but which carry with them the rewards of effortful achievement. He should be conscious of this goal-setting behavior and should even verbalize his intended achievement. Encouragement at points of failure and generous rewarding praise should, of course, be forthcoming from the mediator.

5. *Socialization.* The culturally disadvantaged child is not likely to have come from a home in which he has been given experience in the very practical social amenities necessary for harmonious interaction with others or for appropriate behavior when he enters school. These social skills must, therefore, be taught. Sharing, taking turns, respect for the classroom authority figure, and various forms of self-control are fundamental to socialization. The mediator needs to be alerted to signs of lack of social skills and should employ many of the principles discussed previously in regard to the specific role of the mediator in the learning situation.

6. *Value Orientation.* Certain of the fairly standard values that are held by the general society are not likely to have been assimilated by the disadvantaged child. Lacking them, he may at best encounter derision and rejection and, more seriously, he may run counter to the laws in which many of these values are em-

867.

bodied. Examples of such values include: respect for the personal and property rights of others, common courtesy, citizenship responsibilities, intra-familial duties, appropriate regard for authority, etc. These and other values can be woven into many of the activities of the disadvantaged learner as effective means of reversing certain of the deleterious effects of cultural deprivation.

## The Mediator in the Learning Situation

In many of the special programs that are currently being created for the culturally disadvantaged learner, instruction is provided by someone other than a traditionally trained teacher. In certain instances, peers, parents, or a variety of types of volunteers are responsible for the implementation of the curriculum. In any case, however, a vital aspect of the learning experience is the presence of an effective person to *mediate* between the learner and his environment. Mere exposure is not enough, particularly for the culturally disadvantaged student who has had severely limited experience in learning independently.

The purpose of mediation is *to direct the attention, the perception, and the interpretation of the student in the learning situation.* In addition, the mediator *provides encouragement in attacking a learning task, correction and encouragement when incorrect responses are made and confirmation and praise when correct responses are made.* Each of these functions is particularly crucial in the case of the culturally disadvantaged learner whose anticipation of failure is likely to be extreme, emotionally laden, and therefore, debilitating.

Despite the value of his developing independent work habits and the value of exploration and the inquiry, there are times when the learner requires *information or explanations* and these must be provided by the mediator. In addition, the mediator must play the important role of a *model* whom the learner imitates in establishing language proficiency, patterns of general behavior, or values. A very significant problem in the case of the culturally disadvantaged learner is the absence of *someone to mediate between him and his environment in order to make his experiences meaningful and to provide new ones.* And he also lacks adequate models to emulate.

*Diagnosis en route* is another important function of the mediator and this will have to be done in both the cognitive learning and the psycho-social adjustment areas. As learning progresses, the mediator must be alert to special problem areas and provide the necessary follow-up or "branching" activities by which to remedy errors in learning. When there is evidence of personal or social adjustment difficulties, the mediator should be alert to them and either provide assistance in solving them or make referrals when appropriate.

Some assessment must also be made by the mediator of the learner's ability in terms of *the size of the learning increments* which he can manage and also *the degree of complexity of material* which he can handle. Furthermore, and of special importance in the case of the student from a depressed environment, the mediator must *recognize when prerequisite skills or concepts are non-existent* and, therefore, the desired learning cannot take place. In such instances, of course, the mediator must be perceptive and resourceful enough to move back and provide these prerequisite learnings.

Lack of early and continuous guidance in the life of the disadvantaged student quite frequently results in anti-social behavior and a general disregard of authority figures and regulations. In attempting to *handle the inappropriate behavioral deviations prevalent among neglected learners,* the mediator must strike a healthy balance between firmness and freedom. Limits must be clearly established beyond which the learner is not permitted to transgress if he is to accept the regulations which any organized society must realistically impose. And practically any learner—advantaged or disadvantaged—will test these limits to determine how far he can go. He will continue this testing behavior until he has adequately assimilated these limits as internalized regulators.

The range of permissible behavior within the limits set for the learner should permit enough latitude to provide for a healthy amount of self-expression, creativity, and exploration. He must be given opportunities to demonstrate that he is developing internalized controls and a sense of responsibility and initiative. And he should be consciously aware of the fact that he is himself attempting to achieve maturity in this area of self-control.

When limits are being set with firmness or even with punitive measures, the learner should be helped to understand that his personal worth is not under question, but only that his behavior is unacceptable. This approach will permit the mediator to modify behavior without doing essential damage to the learner's self-concept.

What may seem here to be excessive emphasis on the role of the mediator—the teacher, the parent, the volunteer in a program—is in actuality extremely crucial in the case of the chronically neglected, culturally deprived learner. It is crucial because this vital ingredient of mediation has been essentially absent or, at best, slipshod, and its absence accounts for most of his psycho-social and educational problems. *The mediator must, therefore, make very conscious use of himself,* understanding exactly what his role must be and fulfilling it conscientiously; otherwise, attempts to impart specific knowledge and skills will be reduced to a futile exercise in absurdity.

It is indeed encouraging that our society is at last focusing concern, allocating funds, and training manpower to retrieve its heretofore forgotten citizens. And it is my very firm personal conviction that the rewards to the people directly involved in this massive endeavor and to our society in general will be vast, immeasurable and permanent.

278.

Vol. 9, 64

## 4. Limitations in the Vocabulary of Disadvantaged Children: a Cause of Poor Reading

J. ALLEN FIGUREL

PSYCHOLOGISTS tell us that one-third of the children from American schools live in "marginal" or "transitional" areas. Many terms have been used to designate these children: underprivileged, culturally disadvantaged, and culturally different.

Many of these children are retarded in reading. Retardation in reading prevents them from securing an adequate education.

Reading retardation has a complexity of causes. Nevertheless, one of the main reasons for such poor results in reading is the meagre experiential background children have had in developing an adequate vocabulary. The limitation in vocabulary prevents the culturally disadvantaged child from reading intelligently the many middle class words which are strange to him verbally and experientially. Language develops with the discovery of reality, and reality in those cases is very limited.

It need not be argued that a knowledge of the vocabulary of culturally disadvantaged children and the areas of experience they represent make a good starting point in the problem of improving the reading of large masses of city children.

[1]Claire Mirick, "The New York City Volunteer Program in Manhattan Elementary Schools," *School Volunteer News*, 7:4, February 1964.

How does the vocabulary of culturally disadvantaged children compare with the above figures? The following table gives the results of the study.

Table I

SIZE OF GRADE VOCABULARIES OF CULTURALLY DISADVANTAGED CHILDREN

| Grade | Number of Words |
|---|---|
| Two | 1,032 |
| Three | 609 |
| Four | 505 |
| Five | 654 |
| Six | 736 |
| All Grades | 3,536 |

Table II

COMPARISON OF THE VOCABULARY OF CULTURALLY DISADVANTAGED CHILDREN WITH THORNDIKE'S ESTIMATES

| Grade | Thorndike's Prediction | Vocabulary of Culturally Disadvantaged Children |
|---|---|---|
| Two | 3,600 | 1,032 |
| Three | 4,500 | 1,641 |
| Four | 5,400 | 2,146 |
| Five | 6,400 | 2,800 |
| Six | 7,500 | 3,536 |

A comparison was made of the vocabulary of culturally disadvantaged children with the standard basic word lists. The vocabulary was also analyzed to determine the nature of the words. Space does not permit giving the details here. An analysis of the areas of experience represented by the vocabulary was also made. Only in the areas of school experiences were culturally disadvantaged children comparable with others.

### Conclusions

The vocabulary of culturally disadvantaged children is comparatively small. They know approximately 3,500 words, the number that are known by many first and second grade children in higher socio-economic groups. This meagre vocabulary places quite a limitation on their reading, for on the basis of the comparisons made in this investigation, culturally disadvantaged children know, on the average, only every second or third word found in their textbooks. Not knowing every second or third word is a serious handicap and one which precludes very much learning from reading.

A comparison of the words in the vocabulary of culturally disadvantaged children with the words in the controlled vocabulary for the middle grades shows that very little effective reading can be expected to be done in the textbooks in use in these grades, for almost all the words in the controlled vocabulary are unknown to culturally disadvantaged children in the various grades.

Less than half of the words in the vocabulary of pre-school children is known by second-grade children in slum areas. Nearly two hundred words in this list do not appear in any grade list of words known by culturally disadvantaged children. This suggests bringing into the activities of boys and girls who live in marginal areas experiences which are represented by the words which are not known.

Common name words, such as *sink, chimney, honey, beef* and *sandwich* are learned by culturally disadvantaged children one or two years later than by other



children. Culturally disadvantaged children know proportionately more name words and fewer polysyllabic words than do those that live in privileged areas.

For the purpose of written communication, culturally disadvantaged children have a sufficient vocabulary, for they know almost all the words which make up ninety-five per cent or more of all the words used by an average person. This statement is substantiated by the fact that they know all except ninety-four words of Basic English.

The vocabularies of culturally disadvantaged children reveal a limited experiential background. Although the number of words known in such areas of experience as clothing, eating, housekeeping, and recreation seems large, the number is still very much limited when compared with the terms privileged children know. Only in the area of school experience are culturally disadvantaged children comparable to others. If reading competency is commensurate with one's experience, and much evidence seems to prove that this is true, culturally disadvantaged children, with their limited experiences, can be expected to do very little effective reading in textbooks they now use. To help these children read better, they must be helped to live better, and in this, the teacher has the world at her command.

869.

279.



ance than other children, because of conditions in their previous life and in their environment. This group includes children with foreign language backgrounds; children whose special dialect of English is almost a foreign language; children with very limited and circumscribed experience; children suffering from malnutrition, disease, and gross inadequacies in provisions of the basic needs of clothing, food, and shelter; children with no stable family ties; and children whose parents or guardians are indifferent to educational goals. We must not overlook the regrettable fact that many children can be classified under not just one of these categories, but qualify as disadvantaged in a number of different ways. Such children may be considered plurally disadvantaged, and it is even harder to overcome the educational problems of these children than it is for children who are disadvantaged in only one way.

The problem of educating the educationally disadvantaged child is being felt most keenly in the big cities. In New York City, the population of Manhattan is now more than half Negro and Puerto Rican, and it is estimated that by 1970 this will be true of the entire city. Many of the disadvantaged are following the middle class into the suburbs surrounding the large cities. Learning how to deal with the problems of educational disadvantage is by no means restricted to the cities.

Back in the 1930's our schools woke up to the presence of disabled readers. Those children, previously considered just stupid or lazy, were shown by intelligence tests to be of normal or even above normal mental ability in areas other than reading. Intelligence tests had to be put into wide use before the presence of disabled readers could be established. It is only during the past thirty-five years that we have recognized reading disability as something correctable, and have introduced diagnostic testing and remedial and corrective programs to reduce the severity of the problem.

The limited educational achievement of the typical educationally disadvantaged child has also been explained by some as the result of limited ability, or lack of interest and ambition, or a combination of both of these factors, but recent evidence

Vol. 10, 1965

## 2. Helping the Slow Reader Who Is Educationally Deprived

ALBERT J. HARRIS
City University of New York

THE TERM "educationally disadvantaged" refers to children who come to school far less ready for normal perform-

870.

indicates that these stereotypes also must be disregarded. They are true of some culturally different or educationally disadvantaged children, but by no means of all of them. In the same way that meeting the challenge of the child with the special disability was a major task for the 1930's and 1940's, meeting the challenge of the massive retardation of educationally disadvantaged children is a major task for the 1960's.

Some very exciting work with disadvantaged children is going on at the preschool level, but that falls within the scope of Dr. Dawson's topic. My concern is with the disadvantaged child who is having trouble learning to read in the primary grades.

While in middle-class populations a relatively small minority fall well below the grade norm in reading, this is not true of the disadvantaged. Last spring my staff helped to select twelve schools in New York City in which to carry on an experimental first-grade program this year. In the schools we chose, the majority of the children could properly be described as slow readers. On the most recent city-wide reading test given near the end of the third grade, the average scores for these schools ranged from 2.6 to 3.45. Seven of the twelve schools had means below 3.0. In other words, the average third grader in those schools was already at least a half-year behind the national norms by the end of the third grade.

A battery of readiness tests was given to the first-grade children in these twelve schools soon after the beginning of school last fall. While the averages tend to run lower than in other populations, the range of individual scores is very large. There are near zero scores at one end, and very superior scores at the other end.

We have been trying four different methods of instruction with these children. Tests will be given near the end of the first grade, and until then only personal impressions can be reported. It is my impression that the majority of these children have made very encouraging progress in learning to read, regardless of which of the four methods was used in their classrooms. With every method, however, there are some children whose progress has been very slight. It is children like these, disadvantaged before they come to school, and getting off to a very poor start at the very beginning of their school careers, who must be an especial source of concern.

Several years ago, Fabian reported on the incidence of reading disability in several different kinds of settings.[1] He reported the following: in a general school sample, 10 per cent; in a child guidance clinic, 33 per cent; in a child placement agency clientele, 66 per cent; in the children's ward of a psychiatric hospital, 73 per cent; and among pre-delinquent and delinquent children, 83 per cent. We know that among the educationally disadvantaged young children, the percentage of those who are cared for by a social agency rather than by their parents is considerably larger than in the general population, and so is the proportion who will become delinquent or who will become patients in mental hospitals.

Superior teaching programs in beginning reading and primary reading will unquestionably raise the educational level of disadvantaged children to the point where many more of them than at present achieve at or above the current norms. The proportion of disadvantaged children who will be slow readers will be smaller than it is at present. However, it may be doubted that a strictly educational approach is sufficient to reach the most disadvantaged among the disadvantaged.

A recent paper by Fite and Schwartz has pointed out that lack of prenatal and/or lack of adequate physical care and medical attention in infancy and early childhood are often associated with cultural disadvantage.[2] This may lead to a high proportion of constitutional handicaps among children in disadvantaged groups.

These investigators made a study of 99 first-grade children in a school whose population was approximately half Negro and half Spanish-speaking. Seventy-five of the 99 children came from homes in which either a foreign language or a

[1] Abraham A. Fabian, "Reading Disability: An Index of Pathology." *Amer. J. of Orthopsychiatry*, Vol. 25, 1955, 319-29.

[2] June H. Fite and Louise A. Schwartz, "Screening Culturally Disadvantaged First Grade Children for Potential Reading Difficulties Due to Constitutional Factors—a Preliminary Report." Paper presented at the American Orthopsychiatric Association Convention. New York: March, 1965.

871.

dialectal type of English was spoken. On the basis of readiness tests, some group psychological tests, and slow progress during most of the first grade, they selected 36 children for individual testing. They reported that 34 of the 36 children showed unusual weakness on at least one of the tests and 16 of the children scored very low on at least three different tests. Two-thirds of them failed the Keystone Telebinocular Vision Test. Three-fourths of them failed on the Wepman Auditory Discrimination Test. Of nine children with visual acuity 20/50 or worse, only three had glasses. More than half showed crossed or mixed dominance, and 15 were confused on directional concepts. More than half did very poorly on a test of repeating digits backwards. As a result of their findings, these authors concluded that we need further research as to which perceptual or neurological difficulties are most highly correlated with reading disability among disadvantaged children.

Most of the effort now going into improving the reading of disadvantaged children is being spent on educational efforts. Some school systems are developing summer reading programs intended especially to help the disadvantaged. Many different kinds of after-school tutoring projects are in effect, some of them utilizing professional help, and many relying mostly on volunteers. These efforts seem to be based on the assumption that more teaching, particularly in smaller groups or individually, will provide what the disadvantaged poor reader requires in order to become a better reader. It may be that this assumption is somewhat naïve. Such efforts may be decidedly helpful for the mildly or moderately retarded readers, but may fail to help the severely retarded readers.

There is need for more studies of the kind by Fite and Schwartz, in which disadvantaged children who are very poor readers are studied individually and intensively by clinical procedures, including the combined efforts of the school psychologist, the social worker, the physician, and the psychiatrist. We know that every kind of handicap is more common among the disadvantaged, and that multiple handicaps are often present. Careful differential diagnosis would seem to be a highly desirable procedure before deciding on the treatment procedure to be followed. Some of these children need medical attention. The proportion of eye defects, hearing losses, and neurological problems is probably higher among them than it is in the general population, and treatment for such conditions may be essential if educational efforts are to succeed. The likelihood that parents will take care of these defects without help from the school or clinic is far less than it is in middle-class families.

The correlation between disorganized and pathological family situations and reading disability is well known, and such family situations are more common among disadvantaged children than they are in the general population. The attempt to treat the reading problem as though the family situation does not exist may be doomed, at best, to very limited success. Perceptual and conceptual immaturities are probably high among young disadvantaged children. We are just beginning to find out what these problems mean and how they can be met.

Most of the moderately retarded readers among the disadvantaged can probably be helped substantially by improved classroom methods and materials and by supplementary after-school and summer reading programs. For the remaining children, the most important single point is the need to consider each disadvantaged child as an individual. Each one has strong points and weak points. Some will respond to one kind of help, while others need something entirely different. For the disadvantaged child with a severe reading disability, effective treatment often will require medical, social, or psychological help as well as remedial teaching.

872.

Vol. 9, 64 280.

# 4. Teaching Reading to Culturally Different Children

ALBERT J. HARRIS



THE PROBLEM of educating culturally different children is being felt most keenly in the big cities at present. Here population change has taken place with amazing rapidity. In New York City, for example, the school population of Manhattan is now more than half Negro and Puerto Rican in origin, and it is estimated that by 1970 this will be true in the entire city. At present this kind of situation is most apparent in the inner core, slum sections of the big cities. But it has already spread into many suburban communities.

Back in the 1930's we woke up to the presence of thousands of disabled readers in our schools. Those children, previously considered to be just stupid or lazy, were shown by intelligence tests to be of normal or even above normal mental ability in areas other than reading. Diagnostic tests and remedial and corrective programs have done much to reduce the severity of that problem.

The limited educational achievement of the typical culturally different child has also been explained by some as the result of limited ability, or lack of interest and ambition, or a combination of both. But recent evidence indicates that these stereotypes must be discarded. They are true of some, but by no means of all, of those we call culturally different or educationally disadvantaged.

The BRIDGE Project at Queens College in New York City is completing a three-year study of a large group of culturally different children who entered a junior high school in 1961. At the beginning of the seventh grade, more than two-thirds scored below fifth grade on a standardized reading test. This group, when tested with a culture-fair intelligence test, achieved a mean IQ well within the average range. Interviews with a sampling of the parents showed that, like other American parents, they had dreams of their children becoming doctors, lawyers, engineers, and so forth. Neither low potential nor lack of parental ambition is true of the majority of this group.

In the same way that meeting the challenge of the child with a special disability was a major task for the 1930's and 40's, so meeting the challenge of the massive reading retardation of our children from culturally different backgrounds is a major task for the 1960's. What works well with advantaged children does not necessarily work well with disadvantaged children. Finding out what can be done to help them become effective students is imperative for American education.

In a brief paper like this it is possible only to take a look at some of the currently significant problems in the teaching of reading to culturally different children.

Reading readiness is a very important issue. There is an increasing conviction that if school is to be effective with children who come to it seriously deficient in readiness for learning, it must begin a readiness program as early as possible. Currently much attention is being paid to experiments in developing readiness for school, starting as early as the age of three. These studies are still on a small scale, but they may lead into the development of public nursery schools for disadvantaged children in the near future.

At first grade level, there is a wide variety of specific approaches which are being advocated as specially suitable for disadvantaged or culturally different children, and all of these need careful tryout. Sylvia Ashton-Warner, in her books *Spinster* and *Teacher,* has stressed the importance of emphasizing the child's world, and providing opportunities for creative self-expression that can drain off aggression and hostility. Her general approach is quite similar to that described by Lee and Allen in *Learning to Read Through Experience,* second edition. If a major aspect of the disadvantaged child's problem is lack of experience and lack of language, then there is a strong theoretical base for a language-experience emphasis.

On the other hand, there are strong arguments in favor of a systematic, skills-centered approach. Riessman has called attention to the traditionalism of lower-class parents, their suspicion of "progressive" educational practices, and the need for firm structure in an educational program suited to children growing up in lower-class homes. Hanson, in his book on *The Amidon School,* has reported favorably on a combination of basal readers with a special phonics program, in a setting which puts emphasis on order, discipline, seriousness, and high standards of work.

Others have been concerned primarily with a disparity between the content of typical beginning reading materials and the lives of culturally different children. Many people have talked about the desirability of materials which come closer to the lives of culturally different children. Materials written with this goal in mind are just beginning to appear. The pioneer is the City Schools Reading Program, produced by the writers' committee of the great city school improvement program of the Detroit public schools, and published by Follett. Another series of pre-primers is being readied for publication by the Chandler Publishing Company of San Francisco. A third is being prepared by the staff of the Bank Street College of Education in New York. Whether these materials will actually produce improved results with culturally different children remains to be tested.

There are many other new kinds of reading programs for beginning readers

873.

that need to be tried out and evaluated in terms of their success with culturally different children. An incomplete list of these would include the following: (a) programed material, such as that produced by Sullivan Associates and published by Webster; (b) several sets of beginning reading materials with a strongly phonic emphasis; (c) materials for beginners with a linguistic basis, such as those built on the theories of Barnhart and Bloomfield, C.C. Fries, and Lefevre; (d) materials printed in Pitman's i|t|a and other phonetically regular alphabets.

Moving on from the beginning of reading instruction, we may well take a look at what has been called the "middle grade hump." There is a transition in reading instruction which takes place at around third grade level, from the beginning emphasis upon reading as a task in which recognizing the symbols is of paramount importance, to the reading problems of the middle grades, in which comprehension depends to a very large extent upon the reader's vocabulary, concepts, general information, and grasp of sentence structure. Here in the past some of the programs which emphasize the mechanics of reading have broken down. Provided we can get children started successfully on reading in the primary grades, do we know how to keep them moving along successfully when the material becomes thought-provoking and challenging? Very little has been done to study the special reading needs of the culturally different or disadvantaged child in the middle grades, and much more needs to be done.

In secondary schools populated largely by culturally different children, the pervasiveness of fairly severe amounts of reading retardation make it quite difficult to accomplish the usual goals of secondary school instruction. Corrective reading programs have been tried, and many of them have not proved to be very successful. The difficulty of overcoming the cumulative effect of years of failure is greater in secondary than in elementary school. In some neighborhoods, the pressure of the outside environment and particularly of gang influences provides an anti-school bias that is very difficult to overcome. It seems fairly evident that any satisfactory program at this level must be closely coordinated with the guidance, psychological, and social services available to the school, either through its own staff or through effective use of community resources.

It would be a great mistake to convey the idea that all culturally different or disadvantaged children are alike and that all have similar instructional needs. The range of individual differences is just as great as it is in the rest of the population. For example, in the junior high school population referred to near the beginning of this paper, the range in IQ's was over sixty points. Some of the children are bound for college; others would be more properly placed in a class for mentally retarded children. To assume that one program, or one teaching approach, will meet the needs of such a varied group would be indeed an oversimplification. However, the bright child in a disadvantaged group has a special problem in that if he becomes an excellent student he runs the risk of social isolation from the other children. A very real conflict of roles and goals frequently prevents this kind of youngster from making the best use of his potential ability. On the other hand, the slow child in such a population may have parents who refuse to recognize his limitations or to accept the idea that he may need a slower pace and more limited scholastic goals.

This paper has attempted to survey some of the important questions that we must ask about the teaching of reading to the culturally different or disadvantaged. This is a field in which systematic research effects are just beginning, and the answers we need are not going to be found easily or quickly.

874.

281.

## 2. Progress in Developmental Reading for Today's Disadvantaged

HELENE M. LLOYD
New York City Public Schools

IN TODAY'S WORLD, the reading needs of the disadvantaged child have come to the foreground. The nationwide Project Head Start program, the increased number of Title I projects, the accelerated movement of the disadvantaged to urban centers, the drive by publishers to develop new reading materials, and the justifiable



pressures from the disadvantaged themselves that they be taught to read—all these have demanded that educators and lay personnel pool their time, talent, and resources to develop a reading program that will meet the needs of today's disadvantaged.

Progress—definite progress—*is* being made in several basic areas in which tremendous needs exist. The progress made, however, represents only the "plug in the hole in the dike;" a long-range action program *must* be developed to insure steadier progress in meeting the needs of nonreaders both in and out of schools throughout our country.

What are benchmarks that indicate progress *is* being made in developmental reading for today's disadvantaged?

### Understanding Children's Needs

The first benchmark is the fact that *much progress has been made in understanding the needs of the disadvantaged child* in relation to reading. At least three of these needs are becoming recognized.

(1) It is necessary that the child have confidence in his ability to learn to read. It is clear that teachers, parents, and the disadvantaged child himself must recognize that the child *can* learn to read and —given instruction suitable to his needs —*will* learn to read as well as his more advantaged classmates. The progress in reading being made by disadvantaged children who *do* develop confidence in the worth of their own ability testifies to the importance of a positive self-image. Creating and extending a positive self-image is now recognized as a component of the process of teaching reading. Giving the Negro child, and others, specific instruction in the history and culture of their ethnic backgrounds is an example of a way of brightening their self-image and thereby increasing the likelihood of their progress in reading.

(2) It is necessary that we recognize the factors, the handicaps, that have been responsible for curtailing progress in reading by the disadvantaged. For example, we must recognize and act upon the lack of auditory perception among the disadvantaged. The child coming from a disadvantaged home is not familiar with the sound and structure of formal English; he does not recognize the sounds, the accents, the language patterns. Both the Puerto Rican and the Negro child have difficulty with the rhythm of English; it is much too fast for these learners; they hear only an unperceived mass of sounds.

Another factor we must recognize and act upon is the weakness in the disadvantaged child's experiential background. He lacks the ability to recognize English words and language patterns as symbols or sound-pictures of things and ideas. Because of his weakness in experiential background, we now know that he has difficulty in understanding the language of textbooks and of his teacher.

(3) It is necessary that there be an extended, sequential developmental program in which corrective-clinical services are an integer.

This need implies that reading must, for the disadvantaged child, be taught throughout his entire school life, prekindergarten through grade 12, with a carefully planned network of services to meet the needs not only of the in-school child but also of out-of-school poor readers and non-readers. The needs of this latter group should and can be met through the establishment of a network of reading centers in libraries, schools, community centers—even vacant stores, if necessary—under the supervision of expert teachers of reading.

This need for comprehensiveness implies also that all special reading services, whether for the advanced or the retarded reader, must be regarded as a basic part of the developmental reading program.

This need for a long-span system implies, in addition, that a sequential skill program for the full gambit from prekindergarten to grade 12 must be carefully developed. In New York City, the schools recognize this aspect and are revising our skill-development program, for publication next fall.

So our first benchmark of progress is the feeling that we are beginning at last to define the problem in terms of the child's need for a positive self-image, in terms of the handicapping factors, and in terms of the long-range service-aligned reading design.

875.

## No Single "Open Sesame!"

The second benchmark of progress is the growing recognition that *no single reading approach, no lone combination of approaches will guarantee that the disadvantaged child will learn to read.* His needs are not met by a formula that fits all his brethren.

Rather, the classroom teacher must become master of all approaches and master of all procedures that will enable her to analyze the child's needs and to prescribe the approach best suited to his present needs. The classroom teacher must know that needs change as they are remedied or met, and therefore the reading approach must change, too. Today a child may benefit from an audio-lingual approach; tomorrow, from a language-experience approach; next week, from a basal-reader approach; and next month, from an individualized-reading approach or from a unique combination of approaches.

This benchmark asks much of the classroom teacher, for she is not likely to be master of all these matters. In a pilot study with teachers of disadvantaged children who were beginning readers, Albert J. Harris found that the teachers *thought* that the children made better progress the initial months of the school year by using basal readers than they did by using the language-experience approach; by the close of the year, however, they found that children with whom they *did* use the language-experience approach were gaining faster than did the basal-reader children. Teachers will need much help in fulfilling the responsibility that we have come to recognize: the need for varying approaches to fit the circumstances of children's learning needs.

The ability to bring together the right reading approach and the right child requires superior skill in the teaching of reading. It also requires recognition of the fact that learning to read is a highly individualized matter: instruction of a class as one reading group in day-to-day practice has no place in today's program for teaching the disadvantaged to read.

## No Magic Elixir

Our third benchmark of progress grows from the second. Just as there is no single approach for teaching reading to the disadvantaged, so is there *no single type of material whose use will insure the reading progress of the disadvantaged.* But there are basic characteristics that materials used successfully with the disadvantaged must possess:

(1) The materials must be based on experiences to which the disadvantaged child can relate. The Bank Street Readers, the revisions of popular basal series, and new supplementary materials are moving in this direction. Much more needs to be done, however, to develop materials for use by pupils at all grade levels (and especially at the intermediate and upper grades), based on children's experiences. Commercial use should be made of the experience charts developed by capable teachers as they work with the disadvantaged. Harris' pilot study, to which I referred, underscored the advantages of using language-experience charts as a basis for beginning reading for the disadvantaged.

(2) Materials for the disadvantaged should have an audio-visual emphasis. Pilot studies, such as one being financed by Astor funds in ten elementary schools in disadvantaged areas in New York City, show the value of stress on audio-visual aspects. All the work done to date by Martin Deutsch with the disadvantaged further confirms the need for intensive audio-visual work as a basis for beginning formal reading.

(3) Materials for the disadvantaged should involve the learner in their use so that he gains a feeling of responsibility for his own reading progress. Materials such as the SRA kits, the Reader's Digest skill texts, Macmillan's skill builders, as well as the programed materials in reading skills being developed by the New York City school system for the use of the disadvantaged, use the basic idea of involving the learner in the responsibility for progress. There is well-defined need for materials that include (a) a simple inventory test to determine reading-skill needs; (b) material a pupil can use, to a large extent independently, to meet these needs; and (c) a simple method by which the child can keep a proud record of his own reading progress.

## Training, Then Retraining

A fourth benchmark in our progress in developmental reading has been *the*

876.

*universal recognition of a need for a new, extensive, imaginative program of preservice and in-service training and retraining for both teachers and supervisors.*

That program should not focus on reading instruction alone, as though it could be isolated into a tight specialization. As John B. King, executive deputy superintendent of the New York City schools, pointed out in a recent address, the training and retraining should concern itself not only with reading *per se* but also with "urban anthropology, linguistics, psychology and pedagogy of teaching English as a second or third language. . . . The various NDEA institutes and fellowship programs should be expanded as rapidly as state, federal, and foundation funds can be made available."

As we expand these programs, however, we must make certain that their caliber of instruction remains high. As one who had the privilege of evaluating several NDEA institutes, I should like to stress that it cannot be emphasized too often or too loudly that such institutes *must* be tailored to prepare teachers for working with today's *dis*advantaged children. The content of the institutes, the approaches suggested, the methods demonstrated, the reading materials reviewed or suggested, should not be "old wine in new bottles" but new potions brewed to meet the complex reading needs of the countless thousands of disadvantaged children who pass through our schools—children who, in the words again of John King, "will find in reading mastery the prime means of breaking the poverty cycle and of acquiring economic, cultural, social, and personal fulfillment."

It is not enough for teachers and supervisors to learn more about reading instruction *in general;* they must learn more about—*all* about—reading instruction for the disadvantaged *in particular.*

There is evidence that big strides are being taken in this regard, quite beyond the institutes and workshops that have been mentioned. In our city alone we are using television, team teaching, films, the buddy system, creative programed instruction, expanded in-service increment courses, expanded preservice orientation of teacher trainees, and many other means of helping teachers learn to work with the reading problems of the disadvantaged. We are not alone in this battle; other cities are making similar assaults. Certainly all of us must make wider and more effective use of every type of preservice and in-service training and retraining that we can imagine. Much *is* being done in this regard—a benchmark of progress.

## Squarer Evaluation

A fifth benchmark of our progress in teaching reading to today's disadvantaged children is *the nearly universal clamor for new tools of evaluation.* The hue and cry is for several new instruments:

(1) There is need for simple types of evalution in which the child can be involved and for which he can be responsible. This evaluation can concern itself with skills, materials, reactions to stories, and many other aspects of reading experience.

(2) There is need for easily-available materials for teachers to use in evaluating needs and points of progress, in relation to specific skills at various sequential levels.

(3) There is need for tools that teachers can use in their work with disadvantaged children at all levels to evaluate the children's ability in auditory and visual perception. *Much* more material, many more tools, are needed in this area, especially for older children.

(4) There is need for extensive revision of standardized reading tests so that teachers of the disadvantaged can gain more accurate and deeper insight into their pupils' reading progress and their status in terms of standardized norms.

The point here is not only that there is a need for squarer yardsticks but also that the need is recognized—and *that* is progress!

## Community Oriented

A sixth benchmark of our progress is the general recognition that *a program to help the disadvantaged to read better must involve the parents.*

One of the exciting advances that we may attribute to Project Head Start is how much we have learned about the effectiveness of including parents, and

877.

indeed the whole community, in the children's "head start."

In the work done by Martin Deutsch with the parents of disadvantaged pre-kindergarten children in New York City —a project that was the forerunner of Project Head Start on a national level— he found that the effectiveness of the work with the children *was directly related* to the extent of parent involvement.

In New York City we have used many means to involve parents in our programs for helping our disadvantaged children, including special films on the learning-to-read process, brochures to guide parents in helping their children, reading exhibits to which parents are invited, and many pilot projects—our Astor study, for example — which include specifically planned roles for parents who are drawn into the projects.

We have only scratched the surface in regard to parent participation, of course; but it is a benchmark of progress to note that the scratch is deep and the interest in it is nearly universal.

## Getting Somewhere

We cannot point to test scores as evidence of our progress in meeting the reading needs of the disadvantaged; for this juncture in educational history, America's Education is tooling up for this newly accepted responsibility and is still working with its pilot models. The assembly line is not yet in full gear. Indeed, the flood of in-migrants to the urban centers is so great that a school system may well congratulate itself in maintaining reading test scores on the plane that they have in recent years.

The evidence lies in the fact that education's responsibility to the disadvantaged *has been recognized and accepted,* the fact that education is directing its enormous talent to the solution of the problems involved in the responsibility. This is why I have been able to point so proudly to what education and educators have accomplished—

1. have come to understand the needs of these children;
2. have come to understand that there is no single formula of uniform application but rather a need for diversified approaches to reading instruction;
3. have ascertained that there is no single kind of material that will meet the needs of so many different kinds of handicapped learners;
4. have seen that the immediate key lies in training and retraining teachers (and have taken much action here);
5. have defined the need for new kinds of tools of measurement and evaluation;
6. have pinpointed the critical role of the parents of the disadvantaged.

True, we have only defined the dimensions of our problem and made brush contact—by pilot studies—with elements of the problem. But we have established principles, we are loading the guns. I believe that most of us now have a reasonable sense of direction in what we are doing.

True, the task ahead is greater than the task behind us; but the floodlights have been turned on and we can "see" what we are doing. And among the stirring things we are doing is buckling on the armor of determination and dedication. Our disadvantaged *are* going to master the basic requisite to their future success as American citizens—*they are going to learn to read!*

878.

282.

## 3. Tailoring the Reading Program to the Needs of Disadvantaged Pupils

CHARLOTTE MERGENTIME

### The Role of the School Volunteer

AT A TIME when the education scene is highly colored by the civil rights question, when teachers are searching for materials and procedures which are meaningful and stimulating to the educationally impoverished child, the community can be utilized as an invaluable resource.

A community project of lay participation, the School Volunteer Program, was organized eight years ago by the Public Education Association and is now a service of the New York City Board of Education. Other cities in many parts of the country have established similar programs.

The project is based primarily on the use of dependable, intelligent volunteers; men and women, who are trained to work with children in the schools. The volunteers report one or two days a week for a minimum of three hours a day and more than half the total number of volunteers offer children enriching experiences in art, music, and dance, or assist pupils in content subjects.

Since reading retardation is a nationwide problem, particularly among children living in overcrowded tenement areas, the school volunteers concentrate much of their effort in special reading programs. The emphasis in these problems is heavily weighted in the direction of providing experiences and skills that make for interested readers. Classroom techniques and texts are generally avoided and the results are highly gratifying.

At present we have over one hundred volunteers in reading help programs serving in eight elementary and five junior high schools. In addition to the volunteers who work in our regularly organized reading help programs, about one hundred and fifty men and women give reading help regularly under the supervision of the classroom teacher.

All the volunteers are carefully selected and interviewed. Those who signify an interest in working twice a week with children in reading are referred for special training. This takes the form of attendance at two basic training sessions where the volunteers are oriented to the background and needs of the urban child, in the context of seeing them as individuals rather than stereotypes. The volunteer attends four additional two-hour sessions which include observation of an experienced reading volunteer at work and observation of a demonstration lesson given by the staff reading specialist. A reading kit containing references and training material is distributed. The school volunteer is introduced to books, materials, and methods and is provided with some simple techniques designed to stimulate and motivate the non-readers.

After the assignment of a volunteer to a school, continued support and training are given. The volunteer is encouraged to maintain a relaxed attitude, to work at improving the self-image of the child, and to lead him into a pattern of learning.

Dramatic results which show a gain of three or more years in reading level during a six-month period can be cited, but much of the accomplishment, equally dramatic, cannot be measured by standardized tests. The potential school dropout who continues with his education, the truant who comes to school, the emotionally disturbed child who functions with less distress in the classroom, the "nontalker" who participates in discussion, the scores of boys and girls to whom books and reading now offer meaningful, exciting experiences are, though objectively non-measurable, positive results. Such results can in large part be attributed to the relationship which is established between one child working with one volunteer who is trying to meet the fundamental needs of this child.

A report from the volunteer chairman of a reading program unit in a school on New York's lower East Side illustrates well the spirit and philosophy of the School Volunteer Reading Help Program.[1]



We now have mostly third graders. Although the children are young, they aren't a bit shy; they come no matter what happens. We sit at our desks, willing strangers, and each child comes to us for forty minutes of reading help. Here there are no masses, no stereotypes, no problem children, only children with problems, many problems. Here there are not only reading problems but a full horizon of obstacles. One child sits like a ramrod, another is never still. We ask ourselves whether it is the desire to read that is missing or the lack of tools that hinder progress. Shall our approach be head-on or subtle? We often talk together between sessions or at the end of the morning in our constant search to find the right approach for each child. We know that success is not always measured by a reading score: Lucy, who always seems to be with us no matter what happens, sang out the other day that she thought we were going good this year. We all felt fine.

879.

283.



stand the full impact of severe deprivation on the preschool child. We still have much to learn about him and about ways of working with him to compensate for his learning handicaps. A number of well-designed experimental programs is in progress, but to date results from these are either incomplete or inconclusive. We still do not know enough to prescribe with confidence the type of program or programs that will ensure optimum learning opportunities for these young children. At this stage of our knowledge what kind of compensatory educational experiences should we provide for severely disadvantaged preschoolers to improve their chances for success in learning to read?

In this paper I shall attempt to identify the truly disadvantaged child and his specific disadvantages in relation to beginning reading, to describe some of his developmental and learning deficits, and to suggest some guidelines for teachers. Some of what I have to say is based on my experiences as an educational consultant with Project Headstart; some of my observations and suggestions are directly related to experiences I have gained from an exploratory project involving severely disadvantaged pre-schoolers at the University of Illinois.

## 2. The Preschool-Disadvantaged Child

QUEENIE B. MILLS
University of Illinois

THE TRULY disadvantaged-preschool child is on a collision course with reading failure in first grade unless something intervenes to prevent this academic disaster. Reading inability among all children is estimated as 15 to 20 percent. Among the disadvantaged children as a group the disability estimate is as high as 50 percent *(8)*, and it is even higher in the case of children from severely impoverished backgrounds.

We are only now beginning to understand the full impact of severe deprivation on the preschool child. We still have much to learn about him and about ways of working with him to compensate for his learning handicaps. A number of well-designed experimental programs is in progress, but to date results from these are either incomplete or inconclusive. We still do not know enough to prescribe with confidence the type of program or programs that will ensure optimum learning opportunities for these young children. At this stage of our knowledge what kind of compensatory educational experiences should we provide for severely disadvantaged preschoolers to improve their chances for success in learning to read?

In this paper I shall attempt to identify the truly disadvantaged child and his specific disadvantages in relation to beginning reading, to describe some of his developmental and learning deficits, and to suggest some guidelines for teachers. Some of what I have to say is based on my experiences as an educational consultant with Project Headstart; some of my observations and suggestions are directly related to experiences I have gained from an exploratory project involving severely disadvantaged pre-schoolers at the University of Illinois.

### The Severely Disadvantaged-Preschool Child

Who is the severely disadvantaged-preschool child? He is roughly between the ages of three and five, and he has not yet entered first grade. If he is enrolled in an educational unit other than a day-care center, it is either a nursery school, a pre-kindergarten, or a kindergarten. Chances are, however, that he does not yet attend a school of any kind. He is not merely a poor child; rather, he is a child whose impoverished-family environment has had such an impact upon his early development that he is ill-prepared for either the behavior requirements of the classroom or the demands of the learning process.

There is a good deal of confusion about the descriptive label *disadvantaged* and quite some disagreement about its appropriateness. We seem to have run the gamut in short order from *underprivileged* through *culturally deprived* and

880.

*culturally disadvantaged* to just plain *disadvantaged*. This term, too, has its drawbacks; for it is easy to build a case for certain "disadvantaged" middle-class children as well as for those from lower-class families.

The fact is that there are many degrees of disadvantage. It should also be recognized that not all poor children are necessarily disadvantaged. A colleague of mine was born in an oil camp in Texas. His family moved constantly from one oil camp to another. He was fourteen before he and his five younger brothers and sisters first entered school. But he wasn't disadvantaged! According to him he was merely poor at that particular time.

The truly disadvantaged child in my frame of reference comes from a bottom-of-the-range, lower-class poor, multiple-problem family. His deprivations have been many and the impact has been severe. He has inherited poverty. And the enormous significance of his deprivation is that he is being socialized in a "culture of poverty" *(7)* which has already started to retard his cognitive development.

Research has demonstrated that such children have many developmental and learning deficits in common. They score well below their middle-class peers on standardized measures of intelligence; their language development is retarded and of poor quality; auditory and visual-discrimination skills are not well developed; and skills for coping with the expectancies of a teaching-learning situation are almost nonexistent *(2, 6)*.

It would be incorrect, however, to say that there is a disadvantaged preschooler per se. A decided range of differences with respect to the degree of disadvantage exists even at the lower end of the deprivation scale. Moreover, these disadvantaged American children come from different ethnic backgrounds and live in different sections of the country. The Oriental child in California and the Hawaiian child in rural Oahu, the Mexican-American or the Indian child in the Southwest, the Puerto-Rican child in Spanish Harlem, the Negro child in a Chicago slum, and the Caucasian child in Appalachia have different needs and backgrounds. The great challenge is still the challenge of individual differences.

## Learning Deficits Related to Pre-Reading Skills

There are a number of basic learnings related to reading which middle-class children acquire during the preschool period and which disadvantaged children fail to acquire. For example, Durkin *(4)* reported that books and "being-read-to" were experienced regularly and with pleasure by the early readers in her research project. Books and being-read-to are unknown quantities in the life of a young disadvantaged child. Because of this fact, he builds neither an understanding of what it means to read nor the desire to learn how.

It is pretty well agreed that we must have a child under attention if we are to teach him to read. Yet, one of the prime characteristics of the disadvantaged child at the preschool level is his notoriously short attention span. Related to this characteristic is the difficulty he has in following the teacher's directions. This child's predominantly physical approach to learning *(3)* may further complicate the problem of getting him involved in reading which, after all, is a fairly sedentary and abstract task.

I do not need to remind teachers that a high level of auditory discrimination is required of the child in the beginning stages of learning to read. Disadvantaged youngsters, however, appear to be surprisingly insensitive to subtle differences in sound. It may be that, living in unadulterated noise, they have learned how *not* to listen *(3)*. The resultant learning deficit is a serious one. It is important that the child be able to distinguish "p" from "b". It is equally important that he be able to listen to and benefit from the language spoken by the teacher.

The young disadvantaged child is a language cripple. He is not, strictly speaking, a non-verbal child; but his verbal inadequacies are such that they present a grave threat to his success in learning to read. This child has not had many experiences with objects and ideas which are familiar to middle-class children. As a result he does not know what these things are or that they have names. Even the simplest pre-primer may present concepts and vocabulary that are altogether unfamiliar.

881.

Add to this the fact that his language is crude and limited, and the prognosis is not too bright.

Basil Bernstein *(1)*, the British sociologist has suggested that the language a child learns shapes and limits the *what* and *how* of his future learning. He describes two modes of verbal communication: *restricted* and *elaborated*. Restricted language is characteristic of the disadvantaged. Sentences are short, simple, often incomplete. It is used primarily for social interchange and is understood easily with a minimum of verbal cues. A kind of "disadvantaged pidgin," this type of communication affords little need for reflection. Elaborated language is more precise. The range of concepts, vocabulary, structural elements, and information is greater. It permits reflection and encourages the cognitive use of language as tools of thought.

Imagine a disadvantaged mother who wants to sweep the floor. Her young son is playing in the exact spot where she wishes to use the broom. She points toward the door and says, "Get out!" He obeys without responding verbally. This is restricted language. Now imagine a middle-class mother in the same situation. She might say, "Darling, Mother wants to sweep here. Would you please play in the other room for a few minutes until I have finished?" Something more must be done about this sentence than just listening to it. According to Hess and Shipman *(5)*, the verbal categoric command, "Get out," cuts off thought; whereas the more elaborated message gives the child a reason for his mother's request. Given a rationale, it may encourage him to *ask* why in another situation. This type of verbal interchange may also encourage the child to learn to look for action sequences in his own behavior and in that of others. This more cognitive use of language is essential to interpretation in reading.

### The Illinois Nursery-School Project

Disadvantaged children have much to teach us about themselves. A two-group nursery-school project was initiated at the University of Illinois by Celia B. Stendler and myself on March 1, 1965, BHS—"Before Head Start" — that is, before the maiden summer voyage of the national effort in behalf of deprived four- and five-year-olds. The major purpose of the Illinois project was to gather descriptive data on severely disadvantaged preschoolers at two different age levels and under two different programs and to explore various approaches to parent education at this depressed level.

Both groups were housed in the Child Development Laboratory at the university and met for two and one-half hours five afternoons a week. Both were used as demonstration projects in the training of Head Start personnel.

The major criterion for selection was severe disadvantage. Public welfare officials and principals of schools in the most deprived areas of Champaign-Urbana were contacted for recommendations. It would be difficult to assemble a more bottom-of-the-barrel group of families than the ones we finally recruited. These were truly hard-core poverty cases. Moreover, the principals had nominated those families where there had been other children who had given the school real trouble over the years. To let the university take off some of the rough edges of behavior before this next child arrived on the kindergarten or first-grade doorstep was an obviously inviting temptation. Prayerfully principals made their recommendations, and we selected the most disadvantaged.

The children ranged in age from two and one-half to five years. They were divided into two age groups. Approximately one fourth of the sixteen children in each group was Caucasian, and the rest were Negroes. The older group was subjected to a highly structured situation using Piaget-inspired materials. The younger group was exposed to a more conventional and informal type of nursery-school program. Concrete experiences, concept development, and oral language were emphasized in both groups—individually and informally with the threes, and in small structured groups with the fours. The three-year-olds stayed at the laboratory for almost five months; but the four-year-olds were available to us for only three months.

The first thing we noticed about these children was that they were unable to manage space. Our playrooms are enormous. Unaccustomed to such freedom of

movement indoors, they simply used the square footage as they would outdoor space—to exhibit open-field running. We learned shortly to break up this space, to limit the time for "free play" to twenty minutes at first, and to organize for "structured freedom." In this highly structured program for the four-year-olds, attention span was noticeably short and the activity level was very high. These two factors together necessitated a shifting program, versatile teachers, and small-group activities for short periods of time.

Next we learned that more teachers were needed in the four-year group than in the three-year group. A ratio of one teacher to four children appeared to be the most effective arrangement for small-group, direct-teaching activities. In contrast, the less structured, more traditional nursery school functioned well with only three teachers for sixteen children. Teacher personality undoubtedly had some effect on the situation, but it is a difficult variable to assess. Both head teachers were fine, intelligent, dedicated people. From observation, however, the younger children's teacher appeared to be somewhat warmer, more relaxed in her teaching style; and she was better trained to work with young children.

One of our most startling discoveries was the way these children used equipment. They threw everything they could pick up! A hole is to dig; a stick is to throw. A book isn't much different from a stick if you have never seen a book and you don't know what it is for or how to use it. Slowly, step by step we had to model how these concrete objects could be used. We were building concepts along the way. The old admonition not to make models for children to copy is still good advice, but it needs some modification. Children who have no built-in schemas for looking at picture books, listening to stories, or using paints and crayons need someone to model these activities for them.

One rather curious reaction was noted repeatedly in connection with the plastic toy animals. The children were afraid of them. They seemed unable to accept the fact that these toys were not real animals. When the gray rat-sized elephant was presented to one child, he ran away screaming, "He bi me! Bi me!"

These severely disadvantaged youngsters were capable of as much as ten to fifteen minutes of sustained play, but we learned early that it is important to guide or direct them before they reach some commitment to an undesirable activity. How to set limits and how to reinforce desirable behavior were perhaps our most challenging control problems. When we failed to use physical punishment, the children thought we weren't serious about the limits. On the other hand, praising a child for a task well done was no guarantee that it would be repeated.

The language deficits were severe in both groups, and much time was spent in the manipulation of concrete objects, naming, classifying, and helping the children to extend their spoken language. Even among these severely disadvantaged children, however, the range of language ability was surprising. For example, on the Templin fifty-item articulation scale, the scores ranged from 1 to 49 correct responses.

Both groups changed in language behavior. Test-retest gains on the Stanford-Binet over a three-month period were positive but not statistically significant. The average increase for the three-year-olds was 5 points; for the four-year-olds, 5.69 points. Shifts in scores on the Peabody Picture Vocabulary Test (PPVT) gave us better information. Initial testing on the PPVT was done after approximately two months in nursery school. The interval between testing was approximately two and one-half months. Average increase for the three-year-olds was 13.8 significant beyond the .025 level. Teacher ratings and structured parent interviews also indicated the improvement in language use.

### Guidelines for Teachers

The following points are offered in summary as guidelines for teachers:

1. Not all young disadvantaged children are alike. They have different backgrounds, different needs, and may present different degrees of deprivation. Moreover, the range of individual differences within a group may be as great as it is among groups.

883.

2. Learning deficits related to pre-reading skills are associated with auditory discrimination, concept formation, and language development. Compensatory educational programs should emphasize learning activities which will eliminate the existing handicaps.
3. Young disadvantaged children have to learn to be taught; therefore, at the preschool level, teachers should emphasize the "learning to learn" rather than the "learning to read" skills.
4. Teachers planning activities to help children "learn to learn" should give attention to helping children find pleasure in books and stories.
5. Always the teacher is the master key to the motivation problem with preschool-disadvantaged children. When there is mutual respect between teacher and child, the teacher can and must serve as a secondary reinforcer for the learning behavior she expects from him.
6. Since there is no one-best educational model for all disadvantaged preschoolers, compensatory educational experiences should be integrated with the best of traditional preschool practices *(9, 10, 11)*.

### REFERENCES


1. Bernstein, B. "Social Class and Linguistic Development: A Theory of Social Learning." In A. H. Halsey, Jean Floud, and C. A. Anderson, Eds., *Education, Economy, and Society*. Glencoe, Illinois: Free Press, 1961.
2. Bloom, Benjamin S.; Davis, A.; Hess, Robert. *Compensatory Education for Cultural Deprivation*. Working papers by participants in the Research Conference on Education and Cultural Deprivation. Chicago: Holt, Rinehart and Winston, Inc., 1965.
3. Deutsch, M. "The Disadvantaged Child and the Learning Process." In A. H. Passow, Ed., *Education in Depressed Areas*. New York: Columbia University Teachers' College, 1963, 163-180.
4. Durkin, Dolores. "Children Who Read Before Grade One," *The Reading Teacher*, January, 1961.
5. Hess, Robert D. and Shipman, Virginia C. "Early Experience and the Socialization of Cognitive Modes in Children," *Child Development*, 36 (December, 1965), 869-885.
6. Hunt, J. McV. *Intelligence and Experience*. New York: Ronald Press, 1961.
7. Lewis, Oscar. *The Children of Sanchez*. New York: Random House, Inc., 1961.
8. Riessman, Frank. *The Culturally Deprived Child*. New York: Harper and Brothers, 1962.
9. Sears, Pauline S. and Dowley, Edith M. "Research on Teaching in the Nursery School." In N. L. Gage, Ed., *Handbook of Research on Teaching*. Chicago: Rand McNally and Co., 1963.
10. Strodtbeck, Fred L. *Progress Report: The Reading Readiness Nursery: Short Term Social Intervention*. Chicago: University of Chicago, August 1963. Mimeographed.
11. Swift, Joan W. "Effects of Early Group Experience: The Nursery School and Day Nursery." In Martin L. Hoffman and Lois W. Hoffman, Eds., *Review of Child Development Research*. New York: Russell Sage Foundation, 1964.


884.

284.



## 2. Utilizing Foreign Language Instruction Methods and Techniques in Teaching Reading to the Disadvantaged

WILLIAM TONEY POULOS

WHO ARE the disadvantaged or culturally-deprived children? What are the new methods and techniques developed in recent years under the National Defense Education Act? How can we employ these techniques and methods to improve instruction for the disadvantaged youngsters in our schools?

The disadvantaged or culturally-deprived children in these United States are those who have not been provided the quality of background, outlook, initial grounding, and readiness for formal learning that middle- and upper-class children have received.

Frank Riessman in the book titled *The Culturally-Deprived Child*[1] refers to these terms interchangeably: disadvantaged, culturally deprived, educationally deprived, underprivileged, lower socio- economic. He points out that by 1970 one of every two big-city children is expected to be "culturally deprived." Big-city children are not the only ones falling into this category, for in the South and Southwest we have many children who are also disadvantaged .

The disadvantaged children in the United States are comprised from the following groups:

1. The children of the Negro from the deep south and those living in the big cities
2. The children of Puerto Ricans in Manhattan, the Cubans in Florida and the Spanish-speaking Americans of the Southwest
3. The children of reservation Indians
4. The children of independent subsistence farmers, mainly native English-speaking of the Appalachian uplands.

Since the National Defense Education Act of 1958 was passed by the Senate and by the House and signed into Public Law 85-864, something over one billion dollars in Federal aid per year *has gone* into every level of education. One of the areas benefiting from the National Defense Education Act has been the field of foreign languages.

[1]Frank Riessman, *The Culturally-Deprived*. New York: Harper Brothers, 1962.



The Commissioner of Education was authorized to make studies and surveys to find out exactly what the needs were in foreign language instruction. For example, what, besides proficiency in language itself, should be taught? What are the best ways of teaching a language? What materials do we need to develop? These questions are of vital importance to all of us who are endeavoring to teach the disadvantaged youngsters of our great land.

Not only are these children disadvantaged but they are also linguistic cripples, and we have no one to blame but ourselves for their great handicaps. For years we have been pushing these children into reading before they were actually ready to proceed.

By teaching the Spanish-speaking youngsters the elements of reading and writing in Spanish while they are learning to understand and speak English and while their English-speaking classmates are learning reading and writing in English and the elements of spoken Spanish, the majority of these young Americans could become literate bilinguals. We have for years neglected to take advantage of all of our resources. This same type of teaching could take place in New York City, Upper New York State, Florida, Louisiana, and in many other parts of the United States.

All of us will agree that children must be able to read to be successful in school, but so many of us have failed to recognize that the steps to reading are as follows: Listening, Speaking, Reading and Writing.

Linguistic science has also made great strides in recent years and each teacher of disadvantaged children should have an understanding of the basic rudiments of linguistics. The American English sound system and the manner in which the different organs of the mouth operate in creating these sounds should be well known.

Many of our problems in the teaching of reading to the disadvantaged arise from the mere fact that the youngsters have not been taught to speak English correctly and that they cannot hear their errors in the new language. This is not only so with the non-English-speaking youngsters but the same is true of the colored youngsters in our schools.

The teaching of oral language is of great importance and should be an integral part of the elementary school program. Teaching American English means practicing phrases and sentences until English word sound, word form, and word order become automatic. Oral mastery means that children can produce each pattern easily, accurately, and spontaneously.

The teacher should emphasize the intonation when the grammatical frame is first introduced. The teacher may help the pupils to hear and reproduce variances in pitch by directing his hand up and down as his voice rises and falls. The feeling for stress and rhythm can be aided by tapping out the rhythm on a drum or clapping his hands.

The sequence for teaching language is as follows:

1. Introduction of the content words along with objects and pictures illustrating situations, meaning, use and purposes
2. Teaching of basic dialogue involving a natural and exclusive use of aural-oral skills in a real situation
3. Supplementary vocabulary items which are closely related to words under study, utilizing relationships
4. Adaptation of the basic dialogue for the purpose of using words and patterns in personal situations
5. Structure drills designed to drill basic grammatical patterns. These are learned first through repetition drill, then through substitution drills, in which a word located in a certain place in the pattern may be changed without changing the essential structure of the sentence.

Thus far we have only discussed the problems which the disadvantaged non-English-speaking youngster deals with each day. The colored youngster has many of the same problems as well as a few more which are unique to him because of his misuse of the major articulatory organs.

When we provide an adequate and proper education for the disadvantaged youngsters in our nation, we will have solved the greatest part of the drop-out problem which exists in our public schools today.

163.

885.

285.

Vol. 10, 1965

## 2. Language Skills of the Culturally Disadvantaged

155.

WILLIAM D. SHELDON
Syracuse University

THE CULTURALLY disadvantaged child enters the school with a basic handicap in language skills. He can leave the school similarly disadvantaged unless we plan a continuous program of language development from kindergarten to the twelfth grade. In the space provided in this paper we shall pinpoint those language skills which need promotion in the primary and intermediate grades and how they can be developed.

Many advocate preschool programs to begin the development of the language skills of the disadvantaged. We agree with these advocates but for practical purposes focus on the kindergarten as offering the first place in which we can influence the majority of our disadvantaged children.

We recommend an all day kindergarten program and a ratio of one teacher to ten pupils. In view of space needs and the lack of qualified kindergarten teachers this suggests a master kindergarten teacher aided by two or three helpers.

Each kindergarten should provide the disadvantaged with an accepting adult who will lead the pupils to understand their environment, the labels which identify its various aspects and the place of each pupil in the environment.

Through tapes, recordings, and through reading and telling we need to fill in the disadvantaged child's gaps in terms of the poems and nursery rhymes known by most pupils but unknown by many disadvantaged.

The basic ideas of the family, home, neighborhood, and such helpers as the policeman, fireman, postman, grocer need careful introduction through films and filmstrips, pictures, stories, and anecdotes. Visiting a home to watch a baby bathed; seeing pictures of the house in which a child lives, the store near his house, and the church in the neighborhood help a pupil develop the background material needed to understand himself and his environment.

A visit of a policeman to the kindergarten can give pupils a first-hand basis for discussing one helper who is usually held in awe. The local fire station can often send an engine and several firemen to the school and provide children an opportunity not only of seeing the engine but scrambling all over it while talking to the firemen.

Because the disadvantaged conceptualize best through concrete and visual experiences, language can be most easily developed in relation to what they can handle or touch and what they can see. Once the pupils have touched and seen, then they can listen with understanding and speak on the basis of their understandings.

It has been suggested that we could spend the whole of a kindergarten year with disadvantaged pupils teaching them to understand through touching, seeing, speaking, and listening in relation to such basic concepts as the family, home, neighborhood, helpers, rhymes, stories, the store, friends, animals, pets, the farm, parks, streets, and others.

These could be introduced by visits, discussions, pictures, filmstrips, film, recordings, plays, dramatic sketches, puppets, television, radio, and any other visual, auditory or physical sources of information, such as the visit of the policeman to the class or a trip by the class to see a new baby bathed.

We do not need to allow the disadvantaged to live in a languageless environment or sit stunned in a language-filled room that yields no meaning for him.

Formal reading instruction can be somewhat delayed while we concentrate on listening-viewing experiences with our disadvantaged first grade pupils. We have set up listening-viewing centers for the most disadvantaged pupils in 21 classrooms. The center consists of a filmstrip projector, an 18 x 24 inch screen, a small table seating eight pupils, a listening device with eight head pieces, a record player and/or a tape recorder and especially prepared pictures to be shown simultaneously with taped stories.

Eight pupils can view a commercial film

886.

strip of a fairy tale simultaneously with an accompanying recording of the story, or view a series of pictures and taped stories. These pupils can operate the equipment, isolated completely with fascination for the pictures and attention focused on the stories heard through the earphones.

When the story is viewed and heard the pupils can draw a picture of their favorite remembered scene and then tell about the part of the story illustrated. The teacher can write a sentence or two on the picture and provide the pupil with a written account of his own reaction to the experience.

Reading instruction of the disadvantaged can utilize a variety of instructional approaches such as basal reading programs, language experience approaches, phonics, or other procedures successful with non-disadvantaged pupils, but the material and procedure must be adapted to the interests and needs of the disadvantaged.

In general we recommend that the skills suggested by the usual basal programs need developing but the pace of introduction and the repetition of skills and new vocabulary should be increased.

If ordinary materials are used then the adaptation for the disadvantaged must include more emphasis on concept development and a more careful assessment of the comprehension of what is read.

A problem may develop related to the interest of disadvantaged pupils in materials unrelated to their specific needs and environment, but until adequate programs are developed specifically for the disadvantaged, we need to adapt those materials now available.

Choral reading has been used successfully in developing not only a memorization of poetry but also the reading of it. One experimenter states that choral reading aids in learning intonation of language, expands vocabularies, aids meaningful reading, and leads to a more accurate use of oral and written language.

We have observed the use of choral reading in 4th grade classes in Rochester, New York and can certify to the fact that the children involved not only could recite the poetry in a delightful manner but learned to read the poems and even write poetry of their own.

Assuming that the disadvantaged child arrives at the intermediate grade reading below the usual grade level and writing in an inadequate manner, we recommend that taped text materials in science, social studies, literature, and mathematics be made available so that the inadequate reader does not need to be unduly handicapped in terms of the information he should have learned through reading.

In our own experimentation with taped texts we found poor readers were able to listen and respond to lessons they could not read. Writing was elicited through work sheets related to the taped material.

A broadly based program of language skill development, utilizing all the tools at the command of most schools should make it possible for most culturally disadvantaged pupils to develop into literate adults who are able to listen and speak, read and write with understanding.

887.

286.

## 2. Selecting Books for Culturally Disadvantaged Children

406.

DORA V. SMITH
University of Minnesota

THE PURPOSE OF teaching reading is that pupils may develop both skill in reading and a delight in books which will enrich life for them as long as they live. A major interest of the educational world today is centered on the discovery of which method of teaching beginning reading will help pupils to read soonest and best. As a result we often forget that what establishes a habit of reading is the use made of it after the textbook is put back on the shelf. This fact is equally relevant to the gifted and to the reluctant reader.

### The Problem of the Disadvantaged Reader

Our problem today is to discover how to help the disadvantaged pupil develop this power and this interest. In spite of the obvious fact that many Negro children come from better homes easily comparable to those of the whites, most of them now congregating in our inner-city schools are distinctly underprivileged in their background and surroundings. Many of them come from homes where there are no books or magazines and no inducement to reading. Typically, there is little family life, scant conversation, and no privacy. A sense of inferiority prevails along with an irrational anxiety, bred of a conviction that the world is against them and their kind. With this distressing self image, the child is discouraged before he begins, either withdrawing into himself or determined to fight for his rights. Once in school, he recognizes the wide differences between his way of life and that of the school and the teacher. The result is a sense of alienation that further stifles his ambition *(A, 8)*.

### The Need for Understanding Contrasting Cultures

At the present time every effort is being made to help the underprivileged child to find himself in books and to develop a new concept of his future as well as some understanding of the world into which he will go. The Bureau of Indian Affairs has been at work on this problem for a long time. In a delightful volume called *Education for Cross-Cultural Enrichment (A, 24)*, Hildegard Thompson has gathered a concretely suggestive group of essays indicating how the culture of the Indian differed from that of the world beyond his tribal existence. The Indian's life was oriented en-

888.

tirely toward the present with no anticipation of the needs of a possible future. There was no need of budgeting time. No one saved for the days to come. No one took pride in work. The volume then describes the process by which boys from such a background could be induced to prepare for life outside the reservation. The educational program developed aimed at enhancing the Indian boy's self esteem, promoting pride in his inheritance, and a desire for successful participation in society today. How books entered into this process is exemplified clearly in the bulletin, *Suggested Books for Indian Schools,* prepared by the Bureau of Indian Affairs *(B, 36)*. The work of Ann Nolan Clark in this effort is well known through such titles as *Little Navajo Herder, Little Navaho Bluebird,* and *Little Boy with Three Names.*

### The Importance of Material Relevant to the Reader's Background

The child in the inner city, whether Negro or Spanish American, is in need of information and stimulation to raise the level of his own self-esteem, to give him a pride in his race, and to help him make the transition from home and neighborhood to a different world. As one writer has said, up to the present in many instances his major concern has been "getting by" rather than "getting ahead."

Motivation in reading depends upon the relevance of the material to the life and the interests of the reader. A revolution is occurring in multi-ethnic reading series for young children, which reveal the life in the inner city and prove that Negroes or Spanish Americans or any other ethnic group can do worthwhile things. A sense of familiarity and of acceptance works wonders with boys and girls. The other day a teacher, without comment, left a pre-primer from the Detroit City Schools series *(B, 40)* on the reading table. A Negro child soon was engrossed in it, examining every page although he could not read. Finally, he closed the book with a sigh, patted the cover, and walked quietly up to the teacher's desk to whisper in her ear, "Mrs. Davis, there's a book over on that table with a little boy in it that looks like me."

The Bank Street Readers are doing the same thing *(B, 40)*. Pictures in full color in both these series reveal life among the peoples of the inner city. The Chandler readers have similar aims with photographic pictures to accompany the text *(B, 40)*. So also has the Skyline series which has come out of St. Louis *(B, 40)*.

Similar in purpose is the little picture book, *My Dog is Lost,* prepared for Puerto Rican children. In it, a lonesome little boy searches for his lost dog on his first day in the streets of New York. A banker, on whose window the child recognizes the equivalent of "We Speak Spanish," gives him a placard with *My dog is lost* written on it in English. His efforts to describe the dog in Spanish words with accompanying gestures intrigue all those who join the search. Then comes the grand climax when his "perrito" jumps down from behind a mounted policeman who is helping the dog to locate his master. This is a slight book by Ezra Keats and Pat Cherr, but one which combines many elements that encourage the Puerto Rican child to believe he has a place in the sun.

Marie Ets's *Gilberto and the Wind,* in a very different vein, shows the love of a little Mexican boy for his playmate, the wind. Most beloved of all is Jack Keat's *Whistle for Willie,* which graphically depicts a little Negro child's efforts to whistle. Some children will be able to read these stories for themselves. Best of all, however, will be the teacher's reading them aloud so that all the children may enjoy together both the text and the pictures.

The importance of hearing such rhythmical stories read aloud is becoming more evident every day. Films and recordings of many of them are now available.* Recently, Weston Woods Studio, Weston, Connecticut, has produced a machine which operates so easily that little children can handle it themselves merely by inserting a boxed film into an opening. The reader, in this case, Harry Bellefonte of television fame, appears on the screen to read a story to the listening children.

*New York Library Association, Children's and Young Adults Section, *Recordings for Children.* Compiled by Mrs. Augusta Baker, New York Public Library, 1961.

989.

When he turns the book around, showing them the pictures as he reads, they laugh uproariously at his sputters and sneezes in impersonation of Willie and his efforts to whistle. Clearly, here is an inducement to children to want to read for themselves. *Gilberto and the Wind* is also being made available in the same form.

### The Search for Inner-City Material

A search is on today for inner-city materials for the primary grades. The reading series already mentioned all deal with this theme.

Then there are innumerable trade books for young children, written about city life, some of which are useful for poor readers in the intermediate grades. Kessler's *Big Red Bus,* Brenner and Katzoff's *Barto Takes the Subway,* and MacDonald's *Red Light, Green Light* open up problems of traffic. Related to the same theme are *Alexander's A B C of Cars and Trucks* and Zaffo's *"Big" Books of Real Trucks, Real Fire Engines, and Building and Wrecking Machines.* These call to mind the easel-sized set of inner-city pictures taken in New Haven, Connecticut, for use in its program for under privileged children, who talk freely about things pictured in the photographs of their own neighborhoods *(A, 29).*

Goodspeed's *Let's Go to a Supermarket* enhances a favorite pastime of children and Tresselt's *Wake Up, City,* reveals the city at a time of day with which they are seldom familiar. Herman Schneider takes them underground in *Let's Look Under the City. City Rhymes* by Grifalconi and *City Street Games* by J. and L. Ambs are also useful.

Burton's *Mike Mulligan and His Steam Shovel* has warmed the hearts of children for nearly thirty years. Snow in the city is always exciting. Hader's book by that title delights the kindergarten and primary grades. *Katy and the Big Snow* and Tresselt's *White Snow, Bright Snow* can be associated with many loved poems about the snow such as Aileen Fisher's "Snowman's Resolution," Alice Wilkin's "Snow," or "Falling Snow" whose author is unknown.*

*See *Time for Poetry* by May Arbuthnot and *Very Young Verses* by Geismer and Sutur.

Community helpers abound in preschool and primary grade books, such as Lenski's *Policeman Small,* Lattin's *Peter's Policeman,* and the most beloved of all policemen in *Make Way for Ducklings.* In view of the Negro's aspiration to serve on the police force, this is a theme of great interest to the children in spite of some unpleasant encounters with these gentlemen.

Above all, the teacher must not forget the library as a major service of the city. Sue Felt's *Rosa Too Little,* Julia Sauer's *Mike's House,* or Crosby Bonsall's *Tell Me Some More* are excellent for reading aloud in the primary grades before a class visits the library or attends a story hour.

Story books also arouse interest in city life: Gilbert's *Mr. Plum and the Little Green Tree,* for example, and *Fly High, Fly Low* by Don Freeman with its striking pictures of San Francisco, the home of the sea gulls. Verses by Phyllis McGinley in *All Around the Town* include many favorites of little children, for instance, "B is for Bus."

Any teacher undertaking such a unit in the intermediate grades should read Marcella G. Krueger's article in the *Chicago School's Journal* for March, 1965 *(A, 10).* To the titles already mentioned she adds the Haders' *Big City,* Natalie Hall's *The World in a City Block* and many other useful books. Her unit ends with "East Side, West Side, All Around the Town," taken from Ray Wood's *Fun in American Folk Rhymes.*

### More Books About Children Like Themselves

Another kind of material much in demand for underprivileged readers is stories of other children like themselves —often Negroes or Puerto Ricans— which will enhance their sense of personal prestige and give them a pride in their own backgrounds. There is no doubt about the usefulness and popularity of Ezra Keat's *Whistle for Willie* and *Snowy Day,* Ann Nolan Clark's *Who Wants to be a Prairie Dog?,* an Indian story, and Marie Ets's *Gilbert and the Wind.* Williamson's *No Bark Dog* and Beim's *Two Is a Team* have also proved useful. So have the stories in the Bank Street, Detroit, St. Louis, and other read-

. 890.

ers with bona fide pictures and scenes. Randall's *Fun with Chris* and Brown's *Ronnie's Wish,* also delight young children. Du Bois's *The Three Policemen,* a humorous prideful story of a little boy who directs three lively policemen, is well calculated to raise the blood pressure of any youthful reader. Lipkind's *Four Leaf Clover* is equally spirited. For children in the middle grades Tarry's *My Dog Rinty* continues the storybook tradition that every Negro boy must have a dog.

### The Oneness of Childhood

And, lest we give the impression that tastes differ widely according to the color of the skin, let us remember that Negro children also have a right to share in the sheer fun of many books enjoyed by all children everywhere, such as *Curious George,* the lively, mischievous monkey, *Caps for Sale,* and *Andy and the Lion.*

Distinctly lively boys and girls people the pages of children's books. *Homer Price* and *Henry Huggins* are for the middle grades. *Little Eddie* and *Betsy* are humorous and relatively easy to read. The last three come in series, so that a teacher may whet the children's appetites by reading aloud one of them and sending the children to the library for others.

In the intermediate grades, young readers may also discover through books that many different kinds of people are adjusting to life in the United States—in Marguerite De Angeli's *Bright April,* for example, or Ellis Credle's *Down, Down the Mountain,* Margery Clark's *Poppy Seed Cakes,* and Eleanor Estes's *The Hundred Dresses,* or *The Moffats,* who, although white, know something about poverty.

### Creating a Pride in Their Country

Underprivileged children, along with all the rest, should take pride in their country's growing. The D'Aulaires' *Abraham Lincoln* and *Benjamin Franklin* are both useful, together with Alice Dalgleish's *The Columbus Story* and *The Thanksgiving Story.* Bulla's *Squanto, Friend of the White Men* reveals a different chapter in American History. Wilma Hay's *Pilgrim Thanksgiving* is also useful for middle or upper grade readers, playing up as it does the Indians' part in the celebration. Esther Averill's *Daniel Boone* is decked with small colored marginal illustrations filled with the details boys like.

### Developing a Love of Poetry

The teacher of Negro and Spanish-American children has a significant opportunity to use their instinctive sense of rhythm to develop a love of poetry. Rhymes and jingles are excellent as an opening wedge—for example, "Here we come Looby, Loo;" "I put my right foot in, I put my right foot out;" and all the array of such rhymes in Wiltrout's *Let's Sing and Play,* Inez Bertail's *Complete Nursery Song Book* or Elizabeth Burchenall's *Folk Songs and Games.* Mother Goose belongs to the whole world of childhood. Perhaps *The Real Mother Goose* and Marguerite De Angeli's *Book of Nursery and Mother Goose Rhymes* are as useful as any editions. Geismer and Suter's *Very Young Verses* comes close to the lives of little children. Helen Ferris's *Favorite Poems, Old and New* is good for the entire family, and William Cole's *Humorous Poetry for Children* pleases all ages. The teacher will find invaluable May Hill Arbuthnot's *Time for Poetry* and her discussion of it in *Children and Books* (ed. 1964).

### Junior High School Reading

We are very fortunate indeed in the amount of help available from successful junior high school programs for the disadvantaged in New York City. Linda Smith writes most interestingly of the literature program for Negroes in Junior High School 54 in Manhattan *(A, 24).* Books by Negro authors are prominent in the program and stories of Negro young people, all of which give the students a feeling that their own aspirations and efforts will not be wasted. In Catherine Blanton's *Hold Fast to Your Dreams,* for example, a Negro girl achieves a career in dancing in spite of prejudice against her. In Ruth Chandler's *Ladder to the Sky* a Negro boy realizes he must do better than the whites because he is expected to do worse. Dorothy Sterling's *Mary Jane,* who is the first Negro to enroll in a desegregated junior high school, succeeds in spite of the feel-

891.

ing against her. In Catherine Marshall's *Julie's Heritage,* a Negro girl in a suburban New York high school finds her music an asset in achieving recognition and discovering her own identity.

Lorenz Graham's recent *South Town* and *North Town* identify the problems of Negro families living in the South and the North today. *Roosevelt Grady,* Louise Shotwell's touching story of an eight-year-old Negro boy, son of an itinerant worker, was runner-up for the Newbery medal in 1964. It is a delightful story of a boy who had a passion for arithmetic. He had mastered "add-to" and "take-away from," but his highest ambition was to learn "gaz-inta." Every time they came to "gaz-inta" in the school he was attending, his father was moved to another job. How the family maintained its stability until the father secured a full year's appointment is beautifully and sympathetically told.

### Pride in Negro Poetry

Negro poetry is an area of study in either the eighth or the ninth grade in Junior High School 54. It begins with well-known Negro poets whose poems have been recorded. Arno Bontemps's volume called *Golden Slippers,* opens the series with such optimistic poems as Georgia Johnson's "I've Learned to Sing," James Weldon Johnson's "'Lift Every Voice and Sing," and Langston Hughes's "Song of a Negro Washerwoman to Her Son," his "Dressed Up," his "John Henry," and his "Alabama Earth—the Grave of B. T. Washington." Hughes's *Dream-Keeper and Other Poems* is also available on records. Selections from James Weldon Johnson's *God's Trombones,* sermons of a Negro preacher, were played on the recorder. Gwendolyn Brooks's *Bronzeville Boys and Girls* was a "must," she reports, for teen-agers. At the end of her list, Miss Smith remarks, "These are the books they carry around, discuss, and pass along to one another. They are better than made-over classics" *(A, 24).*

### The Negro—Past and Present

Everywhere there is a search for materials which will give Negro children and young people a pride in their past. Recently the Associated Publishers have produced *Word Pictures of the Great City* by Elsie P. Derricotte, a book of brief biographies told by a Negro father to his children and suitable for reading in the intermediate grades or for reading aloud to younger pupils. *Famous American Negro Poets* by Charlemae Rollins presents photographs and a poem or two by each poet in addition to biographical sketches. It is intended for the upper grades and junior high school. Many good biographies of individual Negroes are now available to junior high school pupils, which means they will be suitable for slower readers in the senior high. Shirley Graham's *Booker T. Washington, Frederick Douglass, George Washington Carver,* and *Phyllis Wheatley* are particularly useful. Alvin Kugelman's *Ralph J. Bunche, Fighter for Peace,* Dorothy Sterling's *Harriet Tolman and Captain of the Planter,* the story of Robert Small and Catherine Peare's *Mary McCloud Bethune* are also valuable. Russell L. Adams's *Great Negroes Past and Present* challenges the good reader in the junior and senior high.

Jane D. Shackleford's *A Child's History of the Negro* for the intermediate grades is very helpful and can be successfully read aloud to still younger readers. Bontemps's *One Hundred Years of Negro Progress Since the Emancipation* challenges older boys and girls while his *Pictorial History of the Negro in America* is especially useful for its graphic presentation.

Dorothy Sterling's *Forever Free; the Story of the Emancipation Proclamation* is invaluable as a reference source for older pupils. Now Emma G. Sterne has produced *I Have a Dream,* covering the Civil Rights Movement. A poetic recording of the Negroes' story in *North Star Shining* by Hildegarde Swift reads aloud very well and can be read easily by junior and senior high school pupils.

### Sport Stories for Negro Boys

A major interest of older boys is sports —and Negro boys may well be proud of the contribution of their race in that area. Older boys seek such biographies as Bontemps's *Famous Negro Athletes,* Charles Einstein's *Born to Play Ball—*

892.

*Willie Mays* or *Mickey Mantle of the Yankees,* or fiction such as Duane Decker's *Hit and Run* and Gilbert Douglas's *Hard to Tackle,* which reveal the problems of Negro boys on high school teams. Mac Davis has written of *The 100 Greatest Sports Feats* and Philip Harkness, *Lightning on Ice.* Such books as Antonacci's *Basketball for Young Champions* and *Make the Team in Baseball* are popular with elementary school readers. *Little League Heroes,* the story of a Negro boy in the West Austin League, is well liked by middle grade boys.

### Music for Youthful Musicians

Music, too, offers a field of powerful interest to many underprivileged pupils. Helen Whiting has written *Negro Art, Music, and Rhyme,* published by Associated Publishers, and suitable in difficulty for Grades 2-4. Harriet Huntington's *Tune Up* describes the instruments of the orchestra and how they work. Langston Hughes has given us *The First Book of Jazz* and James Weldon Johnson has collected a *Book of Negro Spirituals.* Useful contributions in biography have been made by Arna Bontemps in *Famous Negro Music Makers* and *Chariot in the Sky,* the story of how a runaway slave helped build a university through establishment of the Jubilee Singers. Finally, Benjamin Britain's *World of Music* furnishes the whole story in most fascinating pictures, an exciting account for any reader, whether he reads the rather difficult text or the pictures. Seeger's *American Folk Songs* places the Negroes' contribution in the setting of those of other groups or different sections of the country. Will you let me add as a grand climax, Robert McCloskey's *Lentil,* a picture story book of how a boy and his mouth organ saved the day when a notable politician came to visit a Middle Western town. It is good fun for readers from eight to eighty.

### The Gateway English Project

Mrs. Marjorie Smiley directs the Gateway Project for Grades 7-9, carried on by Hunter College in three junior high schools in New York City with young people who in the seventh grade range in ability from Grade 4.3 to Grade 7.4. Largely Negroes, Puerto Ricans, or migrants from the southern Appalachians, they come from disadvantaged homes. A detailed description of their problems was presented by Dr. Smiley in her address before a conference called by the United States Office of Education in 1964 *(A, 9).* According to her summary report in 1965, the aim of the literature program in the junior high school was "to bridge the gap between the pupils' own experiences and those that are the subject of much of the literature acceptable to the more advantaged middle-class children."

Four unit booklets were prepared—the first, *A Family Is a Way of Feeling,* includes lullabies of five nations, a selection from *Roosevelt Grady,* a Puerto Rican story and material from Carl Sandburg along with incidents from the lives of Jesse Stuart and Jackie Robinson. A collection of poems for the same grade, called *Stories in Verse* includes "Casey at the Bat," "The Cremation of Sam McGee," a poem about John Henry, and others by Auden, Benet, Nathan, and Edwin Arlington Robinson. The volume called *Who Am I?* is decidedly masculine in its revelation of how personality is sized up by friends and enemies. It includes stories like *The New Kid* by Murray Heyert, and *Horatio* by Gregor Felsen, together with poems like Robert Frost's "Acquainted with the Night," Edgar Lee Masters' "Achilles Deatheridge" and Emily Dickinson's "I'm Nobody, Who Are You?" Typical girls' stories include "Jam Session at Abbey's" and Morley Callagan's "All the Years of Her Life." *Coping* is a collection of stories of people who cope with difficulties and some who give up the struggle. It includes selections from such works as *Mama's Bank Account, Ordeal in the Desert, Poor Richard's Almanac,* the *Cyclops,* and *Wise Old Aesop.* A few of the selections, like Griffith's *Black Like Me,* have been summarized by experts who understand the use of imagery and other literary effects. The four volumes have the merit of being "thin" although they add up to a considerable amount of reading for the year. In fact, two more volumes had been planned for Grade VII, but four proved to be all the pupils

893.

could cover with the amount of speaking, discussion, writing, and dramatization which grew out of the units *(B, 40)*.

The eighth grade booklets are called *Striving, Creatures in Verse,* and *Two Roads to Greatness.* The volume called *Striving* opens with Walt Whitman's "I Hear America Singing." It reveals through stories of a blind machinist, a steelman's nerve, a nurse's duty in time of crisis, a play, *Express Stop from Lennox Avenue,* a singer, an actress, a girl on the road to Grand Opera, and a selection from *The Shadow of a Bull,* success through courage, integrity, and hard work. The stories, all of which are dramatically written, are realistic and apparently elicit from the class straightforward discussion of major issues in finding one's place in the world *(B, 40)*.

*Creatures in Verse* presents forty pages of clever poems about animals, with scarcely one from a zoo. The spider, the city cat, the vultures, the lone dog, the fish in Max Eastman's "Aquarium," Ogden Nash's centipede, and Elizabeth Coatsworth's "Sea Gull." It is an amazing collection of vividly described and cleverly characterized animals, frequently with sly thrusts at their human counterparts and always with startlingly appropriate rhythms, interesting rhymes, and carefully chosen words and figures. One cannot read the volume without knowing human nature better. One feels that, without doubt, the people who chose them knew both poetry and the problems of youth who struggle with life in an underprivileged neighborhood *(B, 40)*.

*Two Roads to Greatness* contains selections from and about Abraham Lincoln and Frederick Douglass, the Negro slave who became a friend of Lincoln and a leader of his people. Major speeches of both men and some by Booker T. Washington and others appear in the volume. The "Gettysburg Address," poems by Sandburg, Benet, and Walt Whitman, and a selection from Robert Sherwood's play *Abe Lincoln of Illinois* are typical of the contents of this volume. The books are published by the Macmillan Company. They would seem a tremendous step forward in presenting meaningful selections of high literary quality *(B, 40)*.

Mr. Spiegler, who worked on the series and wrote the introduction to the volume, *Striving,* entitled his article describing another aspect of the Gateway English program, "If only Dickens had written about hot rods!" a boy's response to the suggestion that he read *The Tale of Two Cities (A, 25)*. It was this that made him give up the old "required classics" and seek a new approach and a new content for his so-called "intellectual ghetto." In desperation he staged a book fair of 2,000 books in "jolly pockets" on hundreds of lively topics. The students browsed for three days. They actually bought 1,123 good books. Prime favorites were *Kon Tiki,* Bill Stern's *My Favorite Sport Stories* and *Mutiny on the Bounty.* One boy sought out *The Scarlet Letter,* thinking it was a football emblem. Another discovered *Hot Rod* and read four more of the series in two weeks. You will think they needed guidance. They did, but the teacher now had something to guide.

In this program the teachers found the Scholastic Teen-Age Book Club invaluable. Its *Scope* magazine which has been established to bring current news, sports, stories, and interesting people on television, radio, and the like to boys and girls overage in interests and underage in reading ability proved a godsend. The enthusiasm of teachers working in this program is contagious, and the results most heartening.

### How Much Literature for the Underprivileged Reader?

The question is being raised in many places as to whether the underprivileged children in our schools are being introduced to enough literature as literature. A recent survey by the National Council of Teachers of English indicates that in general they are not *(A, 3)*. Dr. Lou La Brant has spoken out eloquently for increased general reading and literary background for the more gifted Negroes who are going on to college *(A, 9)*. At Dillard University, she promoted a plan, sponsored by a foundation, to establish summer session programs in which Negro students entering college in the fall spent six weeks of the previous summer reading under tutorial guidance on the campus and talking over their books indi-

894.

vidually with a member of the faculty. The experience proved stimulating both to their interest in reading and their ability to discuss intelligently what they had read.

Use of films, tapes, and recordings is in many cases necessary if the material is to be understood. Mrs. Smiley reports successful reading of one or two dramatic scenes from *Moby Dick* after a film of it had been shown. This combination would seem to have great promise.

In the elementary school, reading aloud or telling stories to underprivileged children daily is an obvious necessity. Storytelling in the pre-school and in all the primary grades is a major avenue of transmitting the literary heritage. "The Three Pigs," "The Three Bears," "The Old Woman and Her Pig," "Cinderella," "The Shoemaker and the Elves," "The Three Billy Goats Gruff" and the "Flying Carpet" are all a part of the inheritance of childhood which every pupil can enjoy, whether he can read or not. Colorful editions with pictures as distinguished as the text are now available for all of them. *Aesop's Fables* have recently appeared in similarly attractive editions—"The Hare and the Tortoise," for example, with illustrations by Galdone, and now Louis Untermeyer has brought out an attractive retelling of them. In the development of appreciation of such literature, children get a new feeling for words from Ann Rand's *Sparkle and Spin.*

Especially suitable for intermediate and junior high school pupils are the tall tales, to which the Negro children's own Uncle Remus made so distinguished a contribution. Charlemae Rollins recommends Margaret Wise Brown's adaptation of Bre-r Rabbit as simpler and less filled with dialect than most. *The Fast Sooner Hound,* told by Arna Bontemps and Jack Conroy, also reads aloud very well. *John Henry,* too, has recently been produced in simpler form by Ezra Keats with illustrations by the author. Courlander's *Terrapin's Pot of Sense* is a popular collection of African folk tales. McCormick's *Paul Bunyon Swings His Axe* and Glen Rounds's *Ole Paul, the Mighty Logger* have no trouble finding readers. Davy Crockett and Mike Fink are other men of strength and valor whose stories are now a part of our Americana.

At the intermediate grade level also, *Pinocchio, Robin Hood,* the stories of Odysseus and a few Greek and Norse Gods or Old Testament heroes can be successfully used by storytelling, playing of recordings,* or reading aloud. Usually, a certain group of more gifted readers is eager to borrow these books.

In one of the elementary schools in Harlem a program is being carried on for pupils ranking considerably above average in reading. They meet once a week with the school's reading expert to look over some of the most challenging books for young readers, such as *Caddie Woodlawn, Wind in the Willows, Tom Sawyer,* or James Daugherty's *Daniel Boone,* which they may then borrow for personal reading. After discussing the book he has been reading with the group, each child places his name and the title on a chart called Our Reading Ladder—to show how far up he has gone.

In this school, also, a member of the staff is assigned to handle books ordered from the Scholastic Arrow and Lucky Book Clubs. Much has been made of this program at the Parent-Teachers' Meetings, and many parents are eager to have their children belong. The aim is to have both parents and children recognize reading as a normal part of life at home and school.

### Reading Lists

Two reading lists which I hope will be useful follow. The first presents some tempting books and articles on materials and reading guidance for the underprivileged. Numbers in the text indicate which ones I have quoted. The second is a list of lists of books suitable for use with underprivileged children. They have been sent to me from reading programs around the country. May I mention a few of them:

The American Library Association has recently prepared for the Office of Economic Opportunity two lists of books of use with Spanish speaking children, one

*New York Library Association, *Recordings for Children.* Selected by Mrs. Augusta Baker for the Children's and Young Adults Services Section. New York Public Library, 1961.

895.

in Spanish, which includes such books as Lois Lenski's *Cowboy Small,* Hans Rey's *Curious George,* Elizabeth Guilfoile's *Nobody Listens to Andrew,* Galdone's *The Old Woman and Her Pig,* and Munro Leaf's *The Story of Ferdinand.* These lists, hitherto available in multigraphed form now appear, together with four additional lists of books for the underprivileged, in a monograph called *We Read,* published by the Office of Economic Opportunity *(B, 37).*

Several lists are available, as you know, in which a special effort has been made to group books of high interest and simplicity of text under various elements in human relationships. In 1963, the American Council of Education revised with the aid of the National Council of Teachers of English its *Reading Ladders for Human Relations,* which groups books topically under such headings as *How It Feels to Grow Up, Feeling at Home, Living with Change,* and *Living with a Free People.* Within each category, books are listed separately for primary and intermediate grades and for junior and senior high school *(B, 1).*

Dunn, Jackman, and Newton have recently revised their *Fare for Reluctant Readers,* which gives a broad coverage of books for junior and senior high school boys and girls *(B, 15).* Its scope is broad, and the authors are willing to include books of known appeal which seldom appear on school reading lists. The National Council of Teachers of English has recently compiled its list of *High-Interest—Easy-Reading for Junior and Senior High School Reluctant Readers (B, 22).*

Two other well-known lists rely for their placement of books largely upon scientific measures of difficulty and include many textbook materials. Dr. Spache revised his *Good Reading for Poor Readers* in 1964 *(B, 33).* Helen Sullivan and Lorraine Tolman will bring out a revision of their *High-Interest, Low-Vocabulary Reading Materials* in Boston University's *Journal of Education* in the late summer or early fall *(B, 35).* A revision of the Syracuse list, *A Place to Start,* appeared in 1965 *(B, 41).*

The Wilmington, Delaware, list has grown out of the recommendations of teachers engaged in its Three Year Experimental Project on Schools in a Changing Neighborhood *(B, 39).*

The Minneapolis bibliography on *Negro Life for Students and Teachers in the Elementary School* is carefully chosen by its Human Relations Committee, which spent a summer examining the books and their usefulness with children *(B, 21).* Augusta Baker's choice of *Books about the Negro* (New York City Public Library), done with very special understanding, has been a standard list for some years *(B, 23),* and has just been revised. Other lists are shorter, but all have grown out of recent local concern for the underprivileged, and therefore are the product of experience—for example, the Macomb County Library (Michigan) lists on *Experiences* and on *Stories (B, 20)* and the Corpus Christi list of 1965 *(B, 11).* The Los Angeles *Comprehensive Book Lists,* which are cover-all lists of library and textbooks, are useful for those wishing to order simple textbook materials to supplement their own standard series *(B, 19).* It will also be helpful for individualized reading programs.

### LIST A

#### SOME TEMPTING BOOKS AND ARTICLES ON READING MATERIALS AND READING GUIDANCE FOR THE UNDERPRIVILEGED


1. Baltimore Public Schools. "Education and Inner City Children," *Baltimore Bulletin of Education,* XLI, No. 2, 1963-64.
2. Berg, Paul Conrad. "The Culturally Disadvantaged Student and Reading Instruction," pp. 111-119 in *Meeting Individual Differences in Reading,* University of Chicago Reading Conference, 1964, University of Chicago Press.
3. Corbin, Richard and Crosby, Muriel, Co-Chairmen. *Language Programs for the Disadvantaged,* the Report of the NCTE Task Force on Teaching English to the Disadvantaged, the National Council of Teachers of English, Champaign, Illinois, 1965. $2.95.
4. Davis, Allison. "Society, School, and the Culturally Deprived Student" in *Improving English Skills of Culturally Deprived Youth,* pp. 10-22. United States Department of Health, Education and Welfare, Office of Education Bulletin, 1964, No. 5.
5. Detroit Public Schools, Division for Improvement of Instruction, Language Education Department, The Follett Preprimer Series, Rationale Prepared by Gertrude Whipple.
6. Figurel, J. Allen (Editor). "Teaching Reading to the Disadvantaged," pp. 160-


896.

175 in *Improvement of Reading Through Classroom Practice,* International Reading Association, 1964.
7. Grambs, Jean D. "The Culturally Deprived Child: Achieving Adequacy through Education," *National Elementary School Principal,* XLIV (November, 1964), 8-15.
8. Groff, Patrick. "Access to Education; New Books for the Slum Child," *The Wilson Bulletin,* XXXVIII (December, 1963), 345-48.
9. Jewett, Arno; Mersand, Joseph, and Gunderson, Doris V. *Improving English Skills of Culturally Different Youth in Large Cities,* Washington: U. S. Department of Health, Education and Welfare, Bulletin No. 5, 1964, Government Printing Office.
10. Krueger, Marcella G. "Choosing Books for the Disadvantaged Reader Can Provide Fruitful Experiences," *Chicago Schools Journal,* XLVI (March, 1965), 246-55.
11. La Brant, Lou. "The Goals for Culturally Different Youth," pp. 22-31 in Jewett *et al.* Item.
12. Levy, Betty Bollinger. "Classroom in the Slums," *Harvard Graduate School of Education Association Bulletin X* (Summer, 1965), No. 2, 18-21.
13. Lighthall, Nancy. "Procedures and Materials for the Culturally Disadvantaged Reader in Grades Nine Through Fourteen," pp. 155-59 in *Meeting Individual Differences in Reading,* University of Chicago Reading Conference, 1964, University of Chicago Press.
14. University of the State of New York. The State Education Department, Bureau of Guidance, Albany, New York. *Selected References for the Education of Culturally Disadvantaged Groups,* 1964.
15. Reissman, Frank. *The Culturally Deprived Child,* Harper, 1962.
16. Reissman, Frank. "Some Suggestions for Teaching the Culturally Deprived," *National Education Association Journal* (April, 1963), 20-22.
17. Risikoff, Rose D. *Curriculum Questions for Equal Educational Opportunity.* Curriculum Consultation Service, Bank Street College of Education, 103 East 125th Street, New York City.
18. Rivlin, Harry (ed.). "Teaching and Teacher Education for Urban Disadvantaged Schools," *Journal of Teacher Education,* XVI (June, 1965), 135-92.
19. Robinson, H. Alan (ed.). *Meeting Individual Differences in Reading,* Vol. XXVI, Supplementary Educational Monographs, No. 94, University of Chicago Press, 1964.
20. Robinson, H. Alan (ed.). *The Underachiever in Reading.* Supplementary Educational Monographs, No. 92 (December, 1962).
21. Rollins, Charlemae. "American Literature for Children," pp. 187-89 in *The Teacher and American Literature.* Edited by Lewis Leary, Champaign, Illinois, National Council of Teachers of English, 1965.
22. Smiley, Marjorie B. "Gateway English: Teaching English to Disadvantaged Students," *English Journal,* 54 (April, 1965), 265-74.
23. Smiley, Marjorie. "Research and Its Implications," pp. 35-61 in Jewett *et al.,* Item No.
24. Smith, Linda. "Literature for the Negro Student," Bulletin of High Points 47: 15-26, October, 1965.
25. Spiegler, Charles G. "If Only Dickens Had Written About Hot Rods," *English Journal,* 54 (April, 1965), 275-79.
26. Thompson, Hildegard. *Education for Cross-Cultural Enrichment,* "Selected Articles from Indian Education," U. S. Bureau of Indian Affairs, Publications Department, Haskell Institute, Lawrence, Kansas, 1964.
27. Whipple, Gertrude. "The Culturally and Socially Deprived Reader," in *The Underachiever in Reading,* Supplementary Educational Monographs, No. 92. Chicago: The University of Chicago Press, 1962.
28. Whipple, Gertrude and Black, Millard H. *Reading for Children Without—Our Disadvantaged Youth,* International Reading Association, Newark, Delaware, 1966.
29. Wright, Betty Atwell. *Urban Study Prints,* New York: The John Day Company.

## LIST B

### SOME HELPFUL LISTS OF BOOKS FOR UNDERPRIVILEGED READERS IN ELEMENTARY AND SECONDARY SCHOOLS

1. American Council on Education. *Reading Ladders for Human Relations.* Muriel Crosby, editor. Champaign, Illinois: The National Council of Teachers of English, 1963. $2.50
2. American Library Association, Children's Services Division (prepared for the U. S. Office of Economic Opportunity). *Children's Books in English and in Spanish, for Spanish Speaking Children. Children's Books in English for Spanish-Speaking Older Boys and Girls.* U. S. Office of Economic Opportunity, Washington, D.C., 1966.
3. Anderson, Marion Posey. *Books to Grow On; Helping the Very Young Explore Their World and Its People,* prepared by the American Jewish Committee, Institute of Human Relations, New York, 1961. Price 25¢.
4. Arkansas Library Commission, Little Rock, *Bibliography for Pre-School Children.* Chosen by Freddy Schader, 1965.
5. Baltimore Public Schools. *Books for Children Who Have Had Many Advantages,* 1964. (To help them understand some of the many kinds of problems faced by other children of the world.)
*Books for Victims of "Disadvantaged Environments"* (To bring joy and develop appreciation, to help children develop such traits as courage and understanding, to help them see beauty and goodness in

others, in themselves, and in the world in which they live.) 1964.

6. Bank Street College of Education, Curriculum Consultation Service, 103 East 125th Street, New York City.
*Americans All: An Intercultural Bibliography for Easy Reading at High Interest Level.* Kg.—S.H.S.
7. Bishop, Claire Huchet. "A Selected List of Children's Books: Have-Nots Here and Abroad," *The Commonweal,* 67 (May 24, 1957), pp. 208-215.
8. Bureau of Indian Affairs, Branch of Education, United States Department of the Interior, *Suggested Books for Indian Schools,* Publications Service, Haskell Institute, Lawrence, Kansas, 1965. Price 50¢.
9. Chicago Public Library. *A Selected List of Books about Negro Life for Children,* 1963.
10. Chicago Public Schools, Department of Curriculum Development, Bureau of Instructional Materials, Division of Libraries, *The Negro in Life and Literature,* May, 1965.
*Bibliography for the Observance of Negro History Week.* Kg-12, 1965.
11. Corpus Christie, Texas. *Books Selected for Use in Project Opportunity, Community Action Program,* 1965.
12. Dade County Schools, Florida. *Aids in Selecting Books for Slow Learners.* Special Reading Services, Learning Materials, Inc., 425 North Michigan Avenue, Chicago, Illinois.
*Personal Problems of Children,* Elvajean Hall, Compiler, Grades 1-9.
13. Detroit Public Schools, Division of Instruction, Language Education Department. *Library Titles Preferred by Teachers and Children in a First-Grade Experiment in Multi-Culture Areas,* Gertrude Whipple, Compiler.
14. District of Columbia Public Schools, Urban Service Corps, *Reading is Fun.* Compiled by Annette C. Reid.
15. Dunn, Anita; Jackman, Mabel and Newton, Roy. *Fare for the Reluctant Reader,* Albany, New York: Capital Area School Development Association, State University of New York, 1964.
16. Eagle, Opal C. "Easy Adult Books for Slow High School Readers," *Top o' the News.* XVII (December, 1960), pp. 19-21.
17. Houston Independent School District, Department of Library Services, *Books for Pupils in the Elementary Talent Preservation Program,* 1965. *Personal Problems of Youth* (Fiction for the Junior High School).
18. Jones, Milbrey L. "Easy Books for Slow Senior High Readers," *Top o' the News,* XXI (April, 1965).
19. Los Angeles City School Districts, Division of Instructional Services, Instructional Aids and Services Branch, Library Section.
*A Bibliography of Easy Books for Junior and Senior High School Students,* 1964.
*Books for EMR Classes—Special Training Pupils in Elementary Schools,* 1965-67.
*Comprehensive Book List—Title I—Recommended Titles for non-English Speaking Program. Comprehension List of Recommended Books for Remedial Reading Classrooms.*
*Easy Reading Books Ordered for Junior High Libraries in the School-Community Opportunity Project in Education,* 1963.
*Easy Reading Books Ordered for the Senior High Libraries in the School-Community Opportunity Project in Education,* 1963.
*Kindergarten Book List,* Title I.
20. Macomb County Library, Mt. Clemens, Michigan. *Picture Books for Pre-Schoolers, I. Experiences Book List, II. Stories,* 1965.
21. Minneapolis Public Schools, Minneapolis, Minnesota, Human Relations Committee. *A Bibliography of Negro Life for Students and Teachers in the Elementary School,* 1965.
22. National Council of Teachers of English, Champaign, Illinois. *High Interest—Easy Reading for Junior and Senior High School Reluctant Readers.* Compiled by Raymond Emery and Margaret B. Houshower. 1965. Price $1.00.
*Books for Beginning Readers,* compiled by Elizabeth Guilfoile. 1962.
23. New York City Public Library. *Books About the Negro.* Selected by Augusta Baker. New Edition, June, 1966.
24. University of the State of New York, Bureau of Child Development and Parent Education, Division of School Supervision, *A Few Suggested Books for Nursery School Children,* 1965. Albany.
25. University of the State of New York, State Education Department, New York State Library, Division of Library Extension. Albany, New York. *Picture Books with a Dual Function,* 1964.
26. North Carolina Advancement School, Winston Salem, North Carolina. *Library Books Frequently Circulated* (High School Boys). *Torchbearer Library* (from the Reading Clinic).
27. Free Public Library of Philadelphia, Office of Work with Children, *Easy Reading for Grades 1 and 2,* 1962.
28. "Readable and Interesting Books for the Reluctant and Retarded Reader," *Elementary English,* 40:106-09, January, 1963.
29. San Diego State College, California. *Recent Easy Books for First Grade Children.* Compiled by Patrick Groff.
30. Scholastic Magazines, Inc., 900 Sylvan Avenue, Englewood Cliffs, New Jersey, 7-7900.
Book Clubs:
Lucky Book Club—Grades 2-3
Arrow Book Club—Grades 4-6
Teen Age Book Club—Grades 7-9
Campus Book Club—Grades 10-12
*Books to Encourage the Reluctant Reader, High Maturity—Easy to Read Paperback Books for Junior High School Students.* Compiled and annotated by Mrs. Ruth R. Adams, City University of New York.

898.

*Reader's Choice Catalog of Paperbacks for Elementary and High School Magazines—Practical English* (High School) and *Scholastic Scope,* adult easy-to-read materials for the disadvantaged.

31. Science Research Associates, Inc. *Multilevel Bibliography of Independent Reading.* Chicago, Illinois.
32. Seligson, Y. "Resources for Reading Teachers; Books for the Reluctant and Retarded Readers," *Journal of Education,* 146:60-70, April, 1964.
33. Spache, George D. *Good Reading for Poor Readers.* Champaign, Illinois: Garrard Press (Rev., 1964).
34. Strang, Ruth; Phelps, Ethlyne; and Withrow, Dorothy. *Gateways to Readable Books.* New York: H. W. Wilson Company, 1958. $3.00.
35. Sullivan, Helen and Tolman, Lorraine. "High-Interest, Low-Vocabulary Reading Materials; A Selected Booklist," *Journal of Education,* Boston University. New Edition, Summer, 1966.
36. United States Department of the Interior, Bureau of Indian Affairs. *Suggested Books for Indian Schools,* Publication Service, Haskell Institute, Lawrence, Kansas, 1965. Price 50¢.
37. U. S. Office of Economic Opportunity, Department of the Interior, Washington, D.C. *We Read* (In press, 1966). Includes eight bibliographies for underprivileged children and youth, prepared by the Children's and Young Adults' Services of the American Library Association.
38. Urban Service Corps, Volunteer Reading Aids Program, Washington, D. C. *A Graded Bibliography for Children with Reading Difficulties.* Compiled by Roy A. Kress.
39. Wilmington, Delaware Public Schools, Three Year Experimental Project on Schools in Changing Neighborhoods: *A New Resource; Growing Up with Books.* Bulletins Nos. 1-5 (October, 1960-May, 1961). Muriel Crosby, Director. Ages 6-16.
40. Some examples of Reading Series for the Underprivileged:
    a. *The Bank Street Readers.* Pre-Primers through Grade 11. The Macmillan Company, New York City.
    b. *The Chandler Language Experience Readers.* (Through Primer.) The Chandler Publishing Company, San Francisco, California.
    c. *The City Schools Reading Program* (Detroit). Gertrude Whipple, editor. Primary Grades and Pre-Primers. The Follett Publishing Company, Chicago, Illinois.
    d. *The Gateway English Series* with *Teachers' Handbooks,* Grades 7-8. Project English Curriculum Study Center, Hunter College of the City University of New York, Dr. Marjorie Smiley, Director. The Macmillan Company, New York, 1966.
    e. *The Skyline Readers,* Banneker Project, St. Louis, Missouri. Mrs. Virginia Brown and Mrs. Arvin Phillips, *et al.* Webster Division, McGraw-Hill Book Company, St. Louis, Missouri.
    f. *New Worlds of Literature,* Grade 9. Warren J. Halliburton and Mauri E. Pelkonen, Harcourt, Brace and Company, New York City.
41. The Reading and Language Art Center. *A Place to Start. Syracuse,* New York: Syracuse University, 1965. $2.00.

287.

VOL. 10, 65

# 3. Oral Language of Culturally Disadvantaged Kindergarten Children

DOMINIC THOMAS
Detroit Public Schools

IN RECENT YEARS, a great deal of concern has been expressed for the proper education of culturally disadvantaged children.

It has been recognized for some time that attainment of the social and educational objectives of the public schools, in culturally disadvantaged areas, requires careful study and analysis of the characteristics of these children; moreover, knowledge gained from such study should be applied to improving their education.

While there are many characteristics of culturally disadvantaged kindergarten children which need to be analyzed, the present discussion focuses on the oral language of such children.

John B. Carroll points out that, "By the time he arrives at school age, the child has already learned to speak with whatever sound system, grammar, and vocabulary are characteristic of the kind of language he has heard most frequently at home or in his neighborhood."[1]

[1]John B. Carroll, "Language Development," *The Encyclopedia of Educational Research.* New York: MacMillan Co., 1959, p. 658.



Because the characteristic language of the home or neighborhood is deficient or different from that which the culturally disadvantaged child hears in school, it follows that he will have difficulty understanding what he hears, how he is expected to speak, and eventually with learning to read and write.

To offset this disadvantage, William S. Gray suggested that word lists of basic readers should be checked against words that culturally disadvantaged children actually use and that their vocabulary should be discovered and introduced in material written for them.[2]

Gertrude Whipple stressed the need to examine the language patterns of culturally disadvantaged children so that reading materials prepared for them are appropriate both in content and difficulty.[3]

Thomas sought to investigate the oral language of culturally disadvantaged children as recommended by Gray and Whipple. Specifically, their performance in such categories as sentence length, sentence structure, vocabulary, and grammatical accuracy were compared with results of earlier studies of upper social status children; also, their spoken vocabulary was compared with that found in standard primary grade word lists and that contained in first grade readers.[4]

## Summary of Study

One hundred culturally disadvantaged children were interviewed using questions such as:

1. What games do you like to play with your brothers or sisters? Tell me about one of them.
2. What are you going to do after school today?
3. What does mother say to you or your brothers and sisters while you are having dinner?

Each subject was asked the same questions. Answers were recorded by means of a tape recorder. From the recordings, more than 26,000 words were tabulated and classified. Analyses were made of over 5,000 remarks to ascertain such items as the number of different words used, and length of the response, the level of maturity of sentence structure, frequency of grammatical errors, and parts of speech used.

Results from the study were compared with results obtained from Templin's report of upper social status groups.[5] Of the forty comparisons made, twenty-nine favored the latter, four the former, and seven neither. A breakdown of the various language categories shows that the upper social status groups used longer sentences. The difference in the mean length is 1.3 words. Upper social status groups tend to use a greater number and variety of words to express themselves. Lower social status groups use a smaller proportion of mature sentences, including compound, complex, and elaborate constructions. With regard to grammatical correctness, upper social status children tend to speak with fewer errors causing incomplete sentences, and tend to commit fewer errors, such as verb and subject not in agreement, colloquialism and slang, errors in conjugation, use of prepositions, ommission of auxiliary and word order. Only slight differences were found in the proportions of parts of speech used by both groups. On the basis of the findings for the various language categories investigated, the children included in the present sample show a deficiency in language development when compared with upper social status children studied by Templin. This deficiency is observed in terms of the amount, maturity, and correctness of oral expression.

When the words used by the children living in low socio-economic urban areas were checked against the vocabulary contained in three leading series of first grade readers, it was found that the subjects used approximately 50 per cent of the words in the readers. Furthermore, the subjects failed to use approximately 20-50 per cent of five word lists (Dolch, Gates, International Kindergarten Union, Rinsland, and Thorndike) recommended for

[2]Discussion with Writers Committee of the Great Cities School Improvement Project (Detroit, Michigan, Jan., 1960).

[3]Gertrude Whipple, "A Report of the Progress of the Writers Committee of the Great Cities School Improvement Project" (Detroit, Michigan, March, 1960).

[4]Dominic Thomas, *Oral Language Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socio-Economic Urban Areas,* Unpublished Ed. D. dissertation, Wayne State University, 1961.

[5]Mildred Templin, Certain Language Skills in Children, Minneapolis: The University of Minnesota Press, 1957.

900

primary grades. Therefore, the vocabulary of the subjects of the present study differs substantially from both first grade readers and standard primary grade word lists.

## Implications

The present study of oral language has implications for teachers and authors. For teachers, the findings suggest that oral language growth should be carefully developed at the kindergarten level. For authors, these findings suggest that standard primary grade word lists are not suitable bases for material written for culturally disadvantaged children.

Sentence structure, grammatical errors, and vocabulary are three aspects of spoken language in which culturally disadvantaged children need help. First of all, attention should be directed toward the development of the ability to organize their responses into acceptable sentences. This ability develops as they become aware of the growth of ideas. Sterl Artley uses the following example to illustrate this point. In the sentence, "Dick and Jane are running to the house," he points out that a teacher can direct attention to a singular noun "Dick," then a compound form "Dick and Jane," forcing the meaningful use of the conjunction "and"; then to the plural verb, indicating the action portrayed "are running"; and finally, to the prepositional phrase, "to the house." Thus, without teaching names for sentence structure, a feeling develops for organizing ideas into complete sentences.[6] Other ways of assisting pupils to grow in the ability to formulate complete sentences include building experience stories and interpreting picture stories.

The findings on specific grammatical errors imply that teachers should look for the characteristic errors children are making and devote sufficient time to improving the language usage of culturally disadvantaged children. The most frequently made errors by the subjects of this study were agreement of subject and verb, slang, conjugation of verbs, excessive use of "and," misuse of preposition, to mention a few.

A few suggestions to enrich the oral language of culturally disadvantaged children follow:

1. Reading a variety of interesting material
2. Discussing stories, poems, and personal experiences
3. Answering children's questions with well chosen words
4. Playing games that enrich the meaning and encourage the use of new words
5. Using newly acquired words in a variety of contexts
6. Visiting many places and events
   (a) Interesting places in the neighborhood
   (b) Libraries, museums, parks, and zoos
   (c) Special programs such as parades, exhibits, and circuses
7. Caring for plants or pets
8. Enjoying pictures from magazines, books, museums, libraries, and home
9. Providing a wide variety of appealing and exciting books
10. Viewing movies and filmstrips
11. Listening to records or using the tape recorder.

The vocabulary lists derived from the recordings of children's remarks in the present study present the teacher with: (1) words which she can use in speaking to children, (2) words whose meanings do not have to be taught, (3) words which can be studied for speech sounds, (4) words children can learn to write, and (5) words that can be used as a check list on supplementary reading material. Moreover, the lists suggest to authors of primary grade reading texts a list of words which are known to children living in low socio-economic areas.

[6] A. Sterl Artley, "Oral Language Growth and Reading Ability," *The Elementary School Journal*, 53 (Feb., 1953), pp. 326-327.

288.

# 3. Our Disadvantaged Older Children

grades 4–12.

349.

DOMINIC THOMAS
Detroit Public Schools

WHILE THERE can be little doubt that the effects of social deprivation are cumulative, the characteristics of older disadvantaged children are quite similar to those of their younger counterparts. In this paper the research findings on such children, as summarized in the *Review of Educational Research,* December, 1965, form the basis for discussing their home environments, language developments, patterns of intellectual functions, and motivations and aspirations.

## Home Environment

Listed among the research on the family and neighborhood environment of socially disadvantaged children were the following features:

1. About one sixth of the breadwinners were unemployed.
2. Few children regularly ate a meal with their parents.
3. Parents were usually satisfied with their children's progress in school, so long as they were not in trouble.
4. Homes had few books; children were read to less frequently and spoke less with their parents.
5. Children exhibited a fear of parental authority and a dependence on siblings and peers.
6. Parents were inaccessible to children's communication.
7. Girls were overprotected; discipline of boys was inadequate.
8. Strong mother-dominated environments were more prevalent.
9. Lack of systematic stimulation plus the presence of much noise fostered inattention and poor concentration.
10. Parents reacted to children's misbehavior in terms of immediate consequences of action, not on an interpretation of their intent.
11. Mothers expected husbands to impose restraints upon the children rather than to be supportive.
12. Fathers felt that child-rearing was the responsibility of the wife.
13. Families tended not to frequently participate in group activities.



Gordon summarized the home and family environment as being ". . . noisy, disorganized, overcrowded and austere, . . . lacking many of the cultural artifacts often associated with the development of school readiness, such as books, art work, variety of toys, and self-instructional equipment. Adult models . . . have been seen as being incongruous with the demands of the school, . . . and the parents of these children often have been reported as failing to support their children's academic pursuits" *(1).*

## Language Development

Jane Raph summarizes the characteristics of disadvantaged children's language developments with the following statement: "Research to date indicates that the process of language acquisition for socially disadvantaged children, in contrast to that of middle-class children, is more subject (a) to a lack of vocal stimulation during infancy, (b) to a paucity of experiences in conversation with more verbally mature adults in the first three or four years of life, (c) to severe limitations in the opportunities to develop mature cognitive behavior, and (d) to the types of emotional encounters which result in the restricting of the child's conceptual and verbal skills. Distinctive qualities of their language and speech include (a) a deficit in the auditory-vocal modality greater than in the visual-motor areas; (b) a meagerness of quantity and quality of verbal expression, which serves to depress intellectual functioning as they grow older; and (c) a slower rate and lower level of articulatory maturation" *(2).*

## Perceptual Styles and Patterns of Intellectual Function

Gordon noted that disadvantaged children have perceptual styles and habits which are inadequate or irrelevant to academic efficiency. He listed the following characteristics from the research:

1. The absence of any high degree of dependence on verbal and written language for cognitive clues was prevalent.
2. Traditional receptive and expressive modes have not been adopted.
3. Concentration and persistence needed on learning tasks were lacking.
4. Auditory discrimination and recognition of perceptual similarities were relatively poor.
5. Slowness appeared as a feature of cognitive function.
6. A "so what" attitude toward difficult problems resulted in a proportionate decrease in learning overtime.
7. Feelings of inadequacy were displayed in school.
8. Dependence was more on external as opposed to internal control.
9. Low self-esteem, high incidence of behavioral disturbance, and distorted interpersonal relationships characterized ego development.

## Motivation and Aspiration

The research on motivation and aspiration revealed that motivation in socially disadvantaged children was frequently inconsistent with the demands and goals of formal education. The nature of their aspirations was usually consistent with their perceptions of the availability of opportunity and reward. Symbolic rewards and postponements of gratification appeared to be ineffective as a means for motivation. Drive was present, but its direction may not be complementary to academic achievement. Socially disadvantaged children tended to be less highly motivated and had lower aspiration for academic and vocational achievement than did their middle- and upper-class school

902.

peers. High levels of aspiration and positive attitudes toward school were only infrequently encountered in lower socio-economic groups.

### Remedial Programs

Characteristics of socially disadvantaged children should be used as information for designing meaningful curricula. While there is agreement on the general characteristics of such children, it must be pointed out that individually they demonstrate widely differing characteristics.

John I. Lee indicated that, "Teachers and schools must, at an early age, discover and identify each child, and must comprehend his development, his individual capacities, and his needs." School services, "... must be provided promptly to remove or minimize each child's disability and to educate him 'over' or 'around' or 'in spite of' his limitations ..." *(3)*.

### Reading Centers

For example, the failure of a considerable number of culturally disadvantaged children to achieve reading proficiency suggests that a need exists for diagnostic, evaluative, and remedial services for these children. Currently Detroit is in the process of establishing experimental remedial-reading centers. The purposes of the centers are (1) To reduce the extent of reading retardation of socially disadvantaged children from low-income families in grades 4 through 12, a... (2) To gain further knowledge and skill for the remediation of reading deficiencies for large numbers of disadvantaged children and youth.

In order to accomplish the objectives as outlined above, five reading centers have been established to give intensive remedial services to disadvantaged pupils who are seriously below their potential in reading achievement. A request for Federal funds to establish the centers was approved under the Elementary and Secondary School Act. Sixty-four public schools and forty-nine non-public schools in three (of nine) administrative regions in Detroit were included. These region areas are characterized by older and often substandard multiple-dwelling housing and populations below the city mean in family income, occupational status, and adult-education level. School data reveal a higher dropout rate, higher degree of overageness for grade placement, and a greater reading retardation for pupils in these regions than for the city as a whole.

Each of the three administrative regions has two centers: one to accommodate elementary-junior high students and, the other, a senior-high unit. On the senior-high level, the centers are housed in high-school buildings where space permits. Elementary-junior high classes are held in mobile units, 20 feet wide by 40 feet long. These have been placed on selected sites adjacent to public schools. At the present time, four such mobile units adjoin each of three elementary schools and one senior-high school. Each elementary-junior high unit serves approximately 18 to 25 public and non-public schools. The transportable buildings provide office and classroom facilities, and air conditioning makes it possible for them to operate during the summer months. Small classrooms are equipped with a wide variety of multi-level books and SRA reading laboratories. Controlled readers, tape recorders, filmstrip projectors, and other visual equipment are provided in each room.

### Staff

The staff of the reading centers is unique. Each center is made up of experienced Detroit public-school personnel, especially chosen for this assignment, and includes an administrator, a reading diagnostician, a social therapist, a psychologist, and six reading teachers. If there is evidence of need, more specialized professional help (such as, services of an audiologist, neurologist, ophthalmologist, or psychiatrist) is available. In this way, the centers provide thorough diagnosis of a child's reading disability and correction of physical, emotional, or neurological defects suspected of being contributing causes of this reading retardation.

### Selection of Pupils

The students are selected from certain public and non-public schools in the project regions. A principal or teacher from a participating school may refer a student from grade 4 through 12 who is reading

903.

at a level which is significantly below his measured or estimated-learning capacity. In general, the criteria for selection are as follows: the student must be reading one or more years below his grade level; he must possess an I.Q. of 80 or above; and he may not be a candidate for a special-education program. After his referral, comprehensive diagnostic tests are administered by the reading diagnostician. The diagnostician may, or may not, enlist the services of the social therapist or psychologist, depending upon the analysis of the testing data. Referring schools are then notified of test results and the names of the students to be admitted to the center. After parental permission has been obtained, the student is assigned to a class and is provided with bus transportation from the participating school to the center.

## Schedule of Classes

Students who attend elementary-junior high centers spend one hour, two days per week in class; students who attend senior-high centers spend one class period, four days per week. Small class size of eight to ten students enables the reading diagnostician to design a remedial program individually tailored to meet the specific needs of each student. Adequate time for planning and evaluating is provided since the teacher has only four classes per day on the elementary-junior high level and five classes on the senior-high level. No classes are scheduled on Wednesdays, this day being set aside for in-service training, staff appraisals of student progress, conferences with parents, and conferences with teachers of children from the participating schools. It is not possible to estimate the length of time that a child receives instruction at the center because kinds and degree of reading retardation will vary with the individual student. However, before a student is released from the center, all concerned personnel must concur that he is ready to operate without further instruction from the center.

## Evaluation

In order to measure the value of such services, a tentative-evaluation design has been formulated by the Research Department of the Detroit schools. This design includes measurement in terms of the project's expected outcomes (product evaluation) and in terms of the services provided and the methods used (process evaluation). The product evaluation will be based on a random sampling of experimental- and control-group pupils. The experimental group will consist of pupils who have had remedial instruction at the project centers; the control group will consist of eligible pupils who have not had remedial instruction at the project centers. The process evaluation will include a continuing examination of the specific objectives of the project and of methods, materials, facilities, services, and staff effectiveness. The main purpose of the process evaluation is to identify changes that should be introduced to increase the effectiveness of the project in attaining the general objectives.

It is the hope of the project staff that as the result of their efforts pupils' attitudes toward themselves and reading will improve, reading-achievement levels will be raised, and the centers will prove beneficial to instructional personnel of participating schools.

### REFERENCES

1. Gordon, Edmund W. "Characteristics of Socially Disadvantaged Children," *Review of Educational Research,* 35 (December 1965), 377-78.
2. Lee, John J. "We Consider the Children: Their Needs Shape Our Efforts," *Graduate Comment,* 4 (April 1961), 17.
3. Raph, Jane Beasley. "Language Development in Socially Disadvantaged Children," *Review of Educational Research,* 35, No. 5 (December 1965), 396-97.

904.

289.

# C. READING PROBLEMS DUE TO ENVIRONMENTAL INFLUENCES

537.

## C1. READING PROGRAMS FOR CHILDREN WITHOUT

### 1. A Perspective on Reading for Children Without

GERTRUDE WHIPPLE
Detroit Public Schools

VICE-PRESIDENT HUBERT HUMPHREY has estimated that from a fourth to a third of all our children are growing up in poverty. For the benefit of those millions of children, the IRA has published a bulletin for teachers entitled *Reading for Children Without — Disadvantaged Youth.* This bulletin describes the effective teaching of youngsters from homes of poverty and illiteracy. The bulletin is concerned with the preschool through the high-school years.

The results of deprivation are well known: In comparison with middle-class children, children from disadvantaged backgrounds suffer more physical handicaps—more eye defects, more hearing losses, more diseases, more malnutrition —and more neurological problems. Disadvantaged six-year-olds come to school without readiness to cope with academic tasks; their language powers are underdeveloped; their auditory- and visual-discrimination skills are relatively poor; their concepts are few and rudimentary. It has been estimated that by the time these children reach grade six they are retarded an average of two years and about by grade eight, three years. Most of them become dropouts before completing high school.

The goal of the bulletin mentioned is to demonstrate how to change "children without" into "children with." Here I will stress three basic considerations in making such a transformation.

First, a good reading program, as important as it is, is not enough to overcome the harsh effects of homes of illiteracy and poverty. Before intellectual retardation can be reduced, physical and neurological handicaps must be removed insofar as possible. The hundreds of disabilities of these children need to be identified, diagnosed, and alleviated. For this purpose schools must diligently seek specialized services such as those of psychologists, nurses, doctors, dentists, neurologists, social workers, and home economists. When serious physical and emotional deficiencies are neglected, reading instruction is usually wasted effort.

Second, the problem of children without is a community problem. Can we hope to transform the children when they spend only about five hours a day in school and then return to the same old environment? The answer is a qualified "No." Some good can be done but not so much as if home conditions were improved. For this reason, we must seek the active involvement and participation of the parents.

For example, in the neighborhood school of a Grand Rapids ghetto, 80 per cent of Raymond Tardy's sixth-grade pupils were two years or more retarded in reading. However, Tardy did not begin his campaign of improvement with the children because he knew that their achievement in school was not a concern of the parents. He thought that if the adults improved their own self-concepts by learning to read, their expectancies for their children would be raised; and the children would become motivated and respond better to his instruction.

Tardy challenged the illiterate parents to come to school and "improve" their reading. After the class had met several evenings, he asked each person to bring another. He furnished pencils, paper, and

905.

transportation and provided care for preschool children while the adults attended class. Anyone could leave the class when he wanted to. But Tardy and the volunteer reading consultants made the class periods so interesting that no one did.

So effective was this program that "school" became a popular word throughout the community. Children had new respect for their parents who were learning to read and became proud that they could now assume a role in the community. The classes taught the parents that welfare is no longer a way of life; further, that their children must be educated to take part in the world of work.

Tardy's advice is "Get to the adults first. Get them to react in favor of school, and then the students will."

Other methods useful in raising parents' aspirations include these:

1. Have qualified parents serve as teacher aids working with young children. The aides can read to children, tell stories, operate audio-visual equipment, do clerical work, and prepare art, music, and other classroom materials.
2. Have regular teachers serve as instructors for bimonthly adult classes designed to help parents teach their own children. The teacher demonstrates materials and techniques and emphasizes their educational uses. He offers suggestions for using commonplace items in the home for education (e.g., clock, calendar, seeds, tea kettle emitting steam, captions on canned goods).
3. Encourage parents to go to public libraries to obtain books for themselves and their children.

As the parent's educational background is extended, he will spend more time with his children. There will be more conversational exchange and interaction, and this change will be reflected in what the child learns as well as in his attitude toward learning.

Third, compensatory education for a child demands a much longer commitment than most of us have realized. Professional literature is replete with descriptions of preschool and first-grade programs. The number of publications for more advanced grades is not nearly so large.

Certainly we can expect the early childhood programs to produce measurable improvements in reading and a raise in intelligence-test scores. But what will happen when the children reach higher grades?

No short period of good beginning instruction will insure lasting success. Such instruction cannot offset all the serious effects of poverty during earlier years. As Ivor Kraft says it "can never substitute for the broad range of healthful, normative home and family experiences of small children."* With low-quality programs above first grade, the results of the best early-childhood instruction will gradually be "washed out."

Actually what we need is "massive expenditures and profound efforts at innovating"* from preschool through high school.

*Ivor Kraft, "Are We Overselling the Pre-School Idea," *Saturday Review*, December 13, 1965, 63.

906

290.

Vol. 10, 1965

# SEQUENCE XII TEACHING READING TO THE DISADVANTAGED

## A. PRIMARY LEVEL

### 1. Inspiring Culturally Disadvantaged Children to Read

GERTRUDE WHIPPLE
Detroit, Michigan Public Schools

CULTURALLY disadvantaged children come from impoverished homes. They are "children without"—without enough space, without enough food, and without enough warmth or clothing. As a result, their physical growth has been stunted. Many of them are public charges living in one-parent homes. In the midst of poverty and frustration, the children get little attention. There are few or no toys in the homes, no picture books, no magazines, and not even a daily paper. The language that the children hear is a far cry from standard English. Thus they come to school lacking the skills and information that children in good homes gain as a matter of course. Indeed, children without are warped not only in body but also in mind and spirit.

#### The School as a Social Lever

But these children have not been deprived of their powers to grow intellectually. The limitations they suffer are those of culture rather than intelligence. They *are* teachable. And we must give them compensatory education so that they can escape from the poverty cycle.

Aspirations and learning goals are adopted early in life. Therefore, the earlier compensatory education is begun by the school, the greater is the chance of success. The nursery school is a better starting place than the kindergarten; the kindergarten is better than the first grade; and the first grade is better than any more advanced grade.

#### Beginning Reading Materials

Now let's turn to first-grade reading. It is imperative that we give children from poor homes the best possible start in learning to read. Some of us face many obstacles in trying to do so. Maybe we have classes in which half of the children come to school hungry. Or maybe the class is so large that the teacher cannot meet the extraordinary needs of the children. These and other such difficulties should be overcome before the child is expected to apply himself to the hard task of learning to read. But today we are concerned with this question: What kind of reading materials can give children who live in congested, multi-racial, urban neighborhoods the best possible start in reading?

Children learn to read best when they can identify with the environment, the characters, and the situations presented in their readers. The typical reader with its all-white characters and suburban settings and activities does not give culturally-deprived children a sense of belonging and a feeling of security. In their case it does not contribute to good personal adjustment.

#### The City Schools Reading Program

In an effort to vitalize the reading program for children without, the Detroit public schools are producing the City Schools Reading Series. A committee of writers and I as chairman spent a year investigating the problem before undertaking to prepare the series. Six of the books[1] have been published as well as a number of teaching aids, namely, a teacher's manual; word, phrase and picture cards; phonic pictures; and a workbook.

This program has five chief features: (1) To raise the aspirations of culturally-disadvantaged children, the series pictures multi-racial characters in urban settings

[1] *Play with Jimmy, Fun with David, Laugh with Larry, A Day with Debbie, Four Seasons with Suzy, In the Big City.* Chicago: Follett Publishing Company. The series will go through Grade 3.



907.

somewhat better than the children's surroundings. But in accord with the recommendations of Detroit teachers, the books do not show the grim realities of the slums. Negro characters are presented in just as favorable a light as white characters. (2) The preprimers are shorter but more numerous than the typical preprimers. There are five instead of three to give the children a greater feeling of accomplishment. (3) The objectives stated and implemented in the teacher's manuals include definite social aims as well as the development of skills. Examples of the social objectives are fostering an appreciation of a father's contribution to his family's well-being, developing the idea of caring for homes and property, and inspiring children to help in work projects. (4) Since the difficulty of these children in learning to read is primarly a language problem, the teacher's manuals provide a wealth of suggestions for extending the children's language experiences. (5) Effort was made to make the stories especially alluring because these children come to school without a desire to learn to read. The stories provide much humor and mystery and many surprise endings to show the children the pleasure of reading. This feature is an imperative in readers for children without.

## An Experiment

After three of the preprimers had been published, the writer set up a carefully controlled experiment to discover the merits of the books. The merits were estimated by comparing the City Schools Series in important respects with the corresponding books of another series (widely used texts considered among the best available).

Twelve classrooms, each in a different school, participated in the experiment. Four of these classes were in all-white schools and ranked above average in socio-economic conditions. Four were in all-Negro schools and ranked below average in socio-economic conditions. The remaining four were in racially-mixed schools and ranked between the all-white and all-Negro schools.

Six classes started with the city schools preprimers, while the other six started with the standard preprimers. After a certain period, the children in each class were given word recognition and oral-reading tests on the series they had used. Then the classes switched books and the procedure was repeated. After the testing on the second series was completed, experimental situations were set up to appraise the interest appeal of the two series and the children's attitudes toward the human characters in the stories.

## Findings of the Experiment.

The word recognition tests showed that the City Schools Series was more successful than the Standard Series in the case of all three racial groups. For the Negro group, which included many culturally-disadvantaged pupils, the differences were highly significant.

In accuracy of oral reading, all the pupils did somewhat better using the City Schools Series. But the series was particularly effective with the boys. This is an encouraging finding because remedial-reading classes are filled mostly with boys. The series was even more effective with the Negro pupils. These pupils required far less reteaching when using the City Schools Series.

In the tests of interest appeal, 73 per cent of the pupils chose the City Schools Series as their favorite. In fact, in every school a majority of the pupils chose this series. The series especially attracted the boys although it was unusually interesting to girls as well. Of the white boys, 82 per cent chose the City Schools Series; of the Negro boys, 86 per cent.

The social attitudes test gave no evidence of racial discrimination among either the white or the colored pupils. It would seem that racial prejudice develops at a more advanced age, when children have had wider social contacts.

## Summary

I should like now to re-emphasize a few major points. Our classrooms must be used in a new fashion as social levers, and reading can be a powerful means to this end. Our greatest hope of breaking the poverty cycle is with young children whose personalities have not been formed. Our beginning reading materials should lift the child's aspirations, portray multi-racial characters having adventures with



which the child is familiar, increase his language power, and, above all, entice the child to read.

908.

291.

## 3. Practical Activities for Classroom Teachers—Grades 4 through 6

340.

LENORE WIRTHLIN
Cincinnati Public Schools

### Who Are The Children Without?

WE KNOW that a large number of children coming from deprived areas have difficulty learning to read. The reason is obvious. These children come to school denied the varied learning experiences which help them master the reading task—denied by poverty, by the indifferent attitudes of parents, by the lack of books within the home, by the lack of attention given to speech patterns, by the lack of oral communications among members of the family, by the lack of motivation for achievement in the environment, and by the lack of a good feeling of personal worth. They may never have had the opportunity to listen carefully to directions, to ask questions, to express ideas, or to explore the outside world beyond their neighborhood.

These children usually live in substandard and crowded homes with little opportunity to play, read, and study. They have short attention spans. Health is often neglected. These are the children without, who by the time they reach the middle grades have acquired an indifferent attitude towards school, towards success, towards goals for the future.

### Raise the Pupil's Self-Image and Promote Self-Confidence

For children to be taught to read they must want to learn. If teachers believe that children without can learn and show this belief, then the ability and the desire to learn become enhanced. It is the role of the teacher to develop a favorable self-image and reasonable academic aspirations in the child. Since the children without generally come from homes without — without experiences, without academic motivation, without tools, without educational stimulation—they are dependent upon the teacher for self-esteem, stimulation, and encouragement. Teachers need to provide opportunities to build on the strengths of these children in order that they may gain needed self-confidence.

The communication skills of listening, speaking, reading, and writing are vital needs of children without. Success in learning to read depends upon the mastery of these skills. The school needs to take a critical look at the special teaching methods and materials that are provided for these children.

### Oral Language

Children from disadvantaged homes are really not verbally destitute. They differ in complexity of language from children who come from more favored language backgrounds. But they are not as languageless as we once thought. Middle-grade children are quite articulate in conversation with their peers. They can sing the latest rock and roll hits, talk out with the beatniks, and play out "007." The question is asked, "What kind of stimuli do they respond to verbally?" They are often surprisingly articulate in role-playing situations. Given a chance, they will tell us what they have come to believe about others and how to get along with them; what the world is like, both that

909.

which they know best and that which is strange and unfamiliar; and what is really important to themselves and others.

If children are to master the basic language skills of oral expression, they must have a wide range of experiences which include listening to stories read by the teacher; taking field trips to such places as the city hall, the art museum, concerts, plays, and music festivals; using and listening to tape recorders; hearing records; and viewing movies and filmstrips. These activities provide pupils with opportunities for language experience. Time should be given to react to and talk about the things they have seen and heard.

### Listening

Listening plays an important part in oral language. The children without are not accustomed to listening. What is more they learned to tune out the continuous street noises and the bickering in the home; in turn, they can tune out verbal situations in the classroom. Successful teachers use a wide variety of materials and techniques to help children listen with increased attention. For example, a listening workshop corner in the classroom could be initiated. Through records and tape recordings of children's stories, youngsters can learn to listen attentively. Within the classroom, teachers use music and rhythm in developing certain activities. Children without love rhythm. Poetry has rhythm and rhythm is released movement. A snowstorm, a rainy day, fireflies can be translated into feelings that these children cannot yet express.

### Reading

Ability to read is basic to learning. It is also complex. It requires a knowledge of why reading takes place and motivation to read. Children without have little opportunity to develop either. Since reading competency is roughly commensurate with one's experience, the children without can be expected to do very little effective reading in textbooks they often are asked to read.

Curriculum materials and methods should be carefully examined. Such innovations as programed instruction can be geared to the thinking of the disadvantaged child. He proceeds at his own rate and is not competing directly with other children. Teaching machines can also be used effectively if appropriate programs are available. The mechanical appeal of such a device is likely to have a special appeal for the child who is physically oriented.

Special materials and techniques should be developed for those children for whom standard English is a second language. These language-impoverished children have great difficulty in the middle grades when the social studies and science texts are above their comprehension of language meanings. Try rewriting the material in the language and sentence structure that they can understand.

The children without, nurtured on television, are moved by drama. They learn through neon signs and billboards. They have interests whether it be Batman of the famed TV serial, the Beatles, or the new-styled drag car. The experience approach is a good beginning for effective reading. The pupil's oral production, written down, supplies the beginning-reading materials that help to build a basic-reading vocabulary. What is more, children can read more fluently what they have written. Stories bound in notebooks can be displayed on the library table for other children to read.

This year more multi-ethnic materials have appeared on the market for the urban deprived child which offer to the child a positive image of himself. Children can identify themselves more easily with the story, characters, and settings related to the world he knows. The result —greater interest in reading.

Read, read, and read some more. Teach children how to read, excite their interests in reading, and stimulate them to lifelong habits of using books. Classroom and school libraries are strong assets. They provide opportunities for children to browse, to derive meaning from pictures, and to hear a story read and to share books through informal activities. One way to bring children and books together is a book fair or book club. A new era in education has been launched by the success of the paperback. Its advantage in economy gives the child an opportunity to own personal books. This ownership may be the very first step along the road to lifetime-reading habits.

Helping the children without means providing practical activities for reading situations through the use of methods and materials suited to their interests and needs.



910.

Combining Research Results and Good Practice
Conference Proceedings of IRA; Vol. 11, Part 2, 1966.

292.

MILDRED LETTON WITTICK

PATERSON STATE COLLEGE

# 4. Culturally Deprived Children and Reading Achievement

STUDIES ON THE effects of social and cultural factors on reading achievement have shown that the culturally disadvantaged are different from other strands of the population in many of the aspects of language development related to success in reading. Educators have begun an attack on this problem with the Operation Head Start programs under way throughout the United States.

A study reported by Barton (*1*:167-74) showed that, in classrooms where children came from working-class families, reading grade levels were generally below actual grade levels in an increasingly greater percentage throughout the first six grades. Among children from the lower-skilled, lower-paid part of the working class, the difference was even greater. Mean percentages of classes reading one or more years *below* actual grade level were:

| | |
|---|---|
| upper class | 3 percent |
| middle class | 6 percent |
| upper working class | 10 percent |
| lower working class | 33 percent |

This investigator also reported the reading advancement of the large school population sampled (1200 teachers provided survey data). Mean percentages of classes reading one or more years *above* actual level from Grade 1 on were:

| | |
|---|---|
| upper class | 66 percent |
| middle class | 41 percent |
| upper working class | 27 percent |
| lower working class | 10 percent |

Barton concluded, "the most important single factor in progress in reading in school is socio-economic class" (*1*:74).



911.

Cooper (*3*:462-471), studying the reading achievement of white and Negro pupils in Georgia, examined reading grade placement scores of the vocabulary and comprehension sections of the California Reading Test for more than 30,000 pupils in grades 4 through 12 during the school year 1958-59. She, like Barton, observed a decrease in rate of growth in both vocabulary and comprehension; this was more marked for Negro than for white subjects, particularly at upper grade levels.

Deutsch (*4*:78-88), on the basis of findings from an extensive series of studies of social class and race, has developed what he calls a "cumulative deficit hypothesis." He suggests that the lack of appropriate language stimulation early in life, both at school and at home, may make success in reading, as well as in other school activities, progressively more difficult, since the child becomes less and less responsive to remediation as he grows older.

This study was based on a population of 292 Negro and white children of various racial and social-class groups who were tested in grades 1 and 5. These subjects were part of a population of about 2,500 children involved in a four-year study called the Verbal Survey. Correlations were reported for 34 variables for a population of 127 first-grade children and 165 fifth-grade children. Among the findings related to the area of reading are:

1] All measures of intelligence, including the WISC vocabulary score, were significantly related to SES (Socio-economic status) only in first grade, but to both race and SES in fifth grade.
2] Scores on the Gates Reading Test, which was given only in fifth grade, were significantly correlated with SES only.
3] Peabody Picture Vocabulary Test scores (given only in Grade 1) were significantly correlated with SES only.
4] On the Cloze Test the correct context score was significantly correlated only with SES at first and fifth grades.
5] The Wepman Test of Auditory Discrimination was correlated significantly with both race and SES in first grade.

Deutsch suggests ways in which his findings have implications for the schools:

> Essentially, it would appear that when one adds four years of a school experience to a poor environment, plus minority group status, what emerge are children who are apparently less capable of handling standard intellectual and linguistic tasks. One might also postulate that when a Negro

912.

child broadens his environmental contacts by going to school (and to and from school) he is made more aware of his inferior caste status, and this has the same depressing effect on his performance that his inferior class status had all along. The data indicate that being lower class, Negro or white, makes for lower language scores. Being Negro makes for lower scores. But being both lower class and Negro does not disproportionately make for lower language scores.

Harris *et al.* (*6*:243-268), commenting on the implications of this study for the teaching of reading, point out:

> Deutsch appears to be arguing that for the disadvantaged children with respect to lower social status and possibly race, the all too usual minor adjustments made by schools to readiness for reading are completely unrealistic. He appears to be arguing that such children must experience massive saturation in language experience both before school and during school years, especially the early ones. He appears to be arguing that major modifications in school curricula and school learning strategies are necessary. This article, and others by the author and his co-workers, would appear to plead for a more aggressive and dynamic implementation of the concept of "readiness" for such children (*6*:245).

Loban's study (*7*) showed that subjects who were low in general language ability were also low in reading ability. The gap between the high and low groups appeared to widen from year to year. Most subjects in the low group were reading significantly below their chronological age in each of the years studied. Loban found writing ability related to socioeconomic position; those in the four lowest socioeconomic categories rated below average in writing. The subjects in the lowest and highest quartiles in writing were also lower and higher in reading achievement.

A recent progress report of the CRAFT project (*5*) describes a study of the methods of teaching reading in three racially segregated areas in New York City. The authors describe the methods chosen for study:

> The central comparison in this study of first-grade reading methods is between the Skills-Centered Approach and the Language-Experience Approach. The Skills-Centered Approach emphasizes the need for order, structure, and built-in repetition. Skills are introduced in specific sequence, the vocabulary is carefully controlled, and the teacher is provided with detailed lesson plans. The Language-Experience Approach emphasizes the need for self-expression through the use of the child's oral language as a basis for beginning reading materials. His experiences provide a basis for concept-building, language enrichment and vocabulary development. Out of the discussion of these experiences, chart stories are developed and used

913.

for reading and writing, for skills instruction, and for drill. The transition to book reading is gradual and individualized.

Each of these two main approaches was further divided into two teaching methods, or variables. The Skills-Centered Approach was subdivided into Variable I, Basal Reader Method, and Variable II, Basal Reader Method with Phonovisual Word Recognition. The Language-Experience Approach was subdivided into Variable III, Language-Experience with customary use of audio-visual aids, and Variable IV, Language-Experience with Audio-Visual Supplementation. In the research design, these four methods were treated as four separate experimental variables (*5*:2-3).

There were 12 classes using each of the four teaching methods. A teacher-training program was set up for the project by an in-service training workshop; by training within schools by consultants; by training *via* the assistant director of CRAFT; and by coordination through consultants and school administration. The twelve elementary schools selected for the study were characterized by 1] having a very high percentage of Negro children, 2] having a minimum of six first grade classes, and 3] showing evidence of cultural deprivation and marked retardation in previous surveys of reading ability. At the conclusion of the first-grade testing, 1,146 of the original 1,378 children remained in the 48 classes. The study began in Fall, 1964. It is now ending in the second grade and it will be continued in the third grade. There were 38 second-year CRAFT classes, divided almost evenly among the four teaching methods. Eleven of the original twelve schools participated in the second year program. In Grade 3 no attempt will be made to keep classes together or to control teaching procedures. The majority of the children will have moved to different schools. Procedures have been set up for tracing them to obtain their scores on the city-wide reading tests. The final report is planned for January, 1968.

A replication of the first-grade study was conducted this year with 26 teachers using the same methods they used last year, each with a new class of children.

Among the tentative conclusions drawn by the authors at this point in the CRAFT research are these:

1] The results as a whole show that disadvantaged first-grade Negro children can make substantial progress in learning how to read. As a group, pupils had done quite poorly on the reading readiness tests. Their achievement was well ahead of expectations based on their pretest scores.

2] Disadvantaged urban Negro children can learn to read by the same

914.

methods that work with middle-class white children. They begin with extremely poor auditory perception skills, limited vocabularies, and other readiness handicaps, but they can respond to superior teaching with good learning. When books and stories are within their comprehension, they respond well to many of the same books that are favorites with middle-class children. Their new, integrated favorites with multi-ethnic characters are probably gaining popularity among middle-class children also.

3] The Basal Reader Method, employed as in the CRAFT Project, held a slight lead among the four methods at the first-grade measuring point. It achieved slightly but significantly highest results in meaningful silent reading comprehension.

4] The Phonovisual Method, although liked by its teachers, did not demonstrate any superiority. It was inferior to the Basal Reader Method in paragraph meaning, and its slightly higher scores on word recognition tests were not statistically significant. It was the lowest of the four methods on the *San Diego Inventory of Reading Attitudes*. Chall (2), surveying research on first-grade reading instruction, concluded that systematic phonics instruction has a delayed effect with disadvantaged children; that it does not do well in the first grade, but shows to advantage by the end of the second grade. The investigators in the CRAFT project comment that it is therefore possible that the Phonovisual method will demonstrate accelerated gains in the next progress report.

5] The Language-Experience Approach with Audio-Visual supplementation obtained significantly higher scores on several tests than did the Language-Experience Method without audio-visual supplementation.

6] In schools in which CRAFT classes were on split-session schedules, achievement in both approaches was considerably lower than in the full-session schools.

## Implications for Classroom Practice

The studies discussed here appear to be useful in suggesting the elements necessary in a curriculum that takes into consideration the needs of the culturally disadvantaged. For this child the school's reading program should:

1] Provide "massive saturation" in language experiences at *all* grade levels.

2] Provide numerous opportunities for the consistent enrichment and reinforcement of vocabulary.

3] Begin the verbal enrichment process at the earliest age the child

915.

15

(and his parents) can be reached.

4] Check carefully on, and provide adequate instruction in, auditory discrimination.

5] Provide books and stories that are within his comprehension.

6] Emphasize comprehension skills.

7] Provide a reading program that has order, sequence, structure, and repetition.

8] Consistently provide remedial help throughout the child's school career as long as he needs it. However, the earlier such assistance is available, the fewer reading failures the child is likely to encounter.

9] Avoid placing him in a split-session school.

As one examines these implications for classroom practice, he is made aware that these are among the characteristics of *any* good reading program for *any* child.

## REFERENCES

1. Barton, Allen H. "Social Class and Instructional Procedures in the Process of Learning to Read," *New Developments in Programs and Procedures for College-Adult Reading* (edited by Ralph C. Staiger and Culbreth Y. Melton). Twelfth Yearbook of the National Reading Conference, 1963.
2. Chall, Jeanne. *Learning to Read: The Great Debate,* Vols. I and II. Final Report of The City College-Carnegie Reading Study (1962-65). New York: The City College of The City University of New York.
3. Cooper, Bernice. "An Analysis of the Reading Achievement of White and Negro Pupils in Certain Public Schools in Georgia," *School Review,* LXXII (Winter, 1964).
4. Deutsch, Martin. "The Role of Social Class in Language Development and Cognition," *American Journal of Orthopsychiatry,* XXXV (January, 1965).
5. Harris, Albert J. (Director), and Blanche L. Serwer. *Comparison of Reading Approaches in First-Grade Teaching with Disadvantaged Children* (The CRAFT Project, Cooperative Research Project No. 2677). The Research Foundation of the City University of New York for the Division of Teacher Education, The City University of New York, 1966.
6. Harris, Theodore L., Wayne Otto and Thomas C. Barrett. "Summary and Review of Investigations Relating to Reading July 1, 1964 to June 30, 1965," *The Journal of Educational Research,* 59 (February, 1966).
7. Loban, Walter D. *The Language of Elementary School Children.* National Council of Teachers of English, Research Report No. 1. Champaign, Illinois: National Council of Teachers of English, 1963.

916.

Vol. 8, 63

293.

## 2. English Primers Around the World

189.

ROBERT L. ALLEN

The topic on which I was originally asked to speak—that of "Pre-Primers Around the World"—is at once too narrow and too broad. I shall limit myself, therefore, primarily to a discussion of primers for teaching *English,* both as a native language and as a second language.

The majority of such primers that I have examined can be divided roughly



into two groups, which reflect by and large the two schools of thought that seem so often to be pitted against each other on the pages of journals like *The Reading Teacher.* Some primers follow the lead of Lawrence Faucett's *Oxford English Course,*[1] in which little attention is paid to individual letters or to their sounds, but in which a carefully controlled vocabulary is introduced a few words at a time, often with accompanying pictures. Students using such primers are evidently expected to learn to recognize each word as a whole rather than as a sequence of symbols representing different sounds.

Michael West's *New Method Readers*[2] also make use of a carefully controlled vocabulary introduced a few words at a time, but included in his series is a so-called "Green Primer" intended for children who do not know the English alphabet. No lesson in the Primer introduces more than two or three new letters, with words that can be spelled by means of the letters already taught. But some of West's lessons would seem to be more confusing than helpful: in Lesson 7, for instance, he introduces the letter *o* for the first time—and immediately brings in such different pronunciations of the *o* as are to be found in words like *not* and *note,* and also the use of final *o* as in *no.*

Some primers published abroad, however, concentrate on at least a few regular spellings before they introduce irregularly spelled words. H. Martin's *New Study Readers,*[3] for example, begin with a primer that presents the following words in Lesson 1, each accompanied by a picture: *a cat, a rat, a bat, a hat.* Lesson 2 introduces *a hen, a pen, a bell, a well;* Lesson 3, *an ox, a box, a fox, a dog;* Lesson 4, *a cup, a pup, a boy a toy.*

### Other Beginners' Books

At the opposite extreme from the primers that I have been describing are beginners' books based on the so-called "oral approach." Since these are intended for use with classes in which all new material is presented orally first, little attention if any is given to a gradual presentation of English sounds or to an ordered presentation of regular spellings. In Part One of Unit One of the *Fries American English Series,*[4] for example, one finds, on the same page, the spelling *-oo-* in both *good* and *afternoon,* the spelling *-ou-* in both *you* and *your,* the final *-o* in both *do* and *Chicago,* the spelling *a*-consonant-*e* in both *name* and *are.*

But, strictly speaking, Book I of the *Fries American English Series* should not be called a "primer" since it does not purport to be a book for teaching reading. Other beginners' books based on the belief held by many linguists that the *real* language is the *spoken* language, go even further in trying to avoid the teaching of reading: in several of the books in Holt's *Spoken Language Series,* for instance, the written forms of the language being taught are not introduced at all; instead, the pronunciation of each sentence is suggested by a phonemic transcription.[5]

Admittedly, teaching a person to read a second language is a very different matter from teaching a child to read for the first time. And yet more and more in recent years, my wife and I have been asking ourselves whether some of the principles which linguists like Leonard Bloomfield and Charles C. Fries have advocated for the teaching of reading to English-speaking children might not be applied with great benefit to the teaching of English as a second language; and conversely, the presence in our family of a child now in kindergarten has led us to wonder whether some of the lessons we ourselves have learned from teaching English to students in other countries might not be turned to advantage in helping our son to move from mere "readiness" to real "reading."

In English-teaching materials which we prepared in Indonesia in 1958,[6] we tried to approximate the phonemic principle of

[1]Lawrence Faucett, *The Oxford English Course.* London: Oxford University Press. (Date of original edition unknown.)

[2]Michael West, *The New Method Readers.* London: Longmans, Green & Co., 1927.

[3]H. Martin, *New Study Readers.* Bombay: K. & J. Cooper, "reprinted" 1952.

[4]Pauline M. Rojas and Staff. *Fries American English Series for the Study of English as a Second Language.* Boston: D. C. Heath and Company, 1952.

[5]See, for example, William S. Cornyn, *Spoken Burmese* (New York: Henry Holt and Company, 1945).

[6]Robert L. Allen and Virginia F. Allen, *Graded English for Caltex Employees.* Rumbai, Indonesia: The Caltex Pacific Oil Company, 1958. (Mimeographed.)

917

one-symbol-per-sound—not by using an artificial phonemic transcription, but rather by using regularly spelled English words. With only a very few exceptions, irregular (or even regular but less common) spellings were not introduced until after all the English sounds had been presented with their most common spellings, and had been practiced orally. In this we hewed close to principles laid down by Leonard Bloomfield for teaching reading to English-speaking children. Furthermore, even in the case of the few exceptions, no irregular spelling of a given sound was ever introduced until after that sound had first been presented with its regular spelling. Following the lead of Michael West (but using a key of our own devising), we represented each vowel sound with a number, which we taught when we first introduced the vowel sound—and which we then wrote under the vowel letters of irregularly spelled words to indicate their pronunciation. Although the first few lessons in our text were exceedingly hard to write, we felt that the results more than justified the effort.

## Picture Alphabets

Another experiment of ours which has colored our view as to the best approach to the teaching of reading took place in Burma in 1953-54. Feeling frustrated by the fact that even after several weeks of studying Cornyn's *Spoken Burmese,* I was still unable to read a single Burmese sign on the streets of Mandalay, I taught myself to read Burmese with the aid of a primer intended for Burmese school children. I then decided to share the fruits of my own learning with my wife, but—in order to make her learning of the Burmese letters less arduous—I borrowed an idea from Frank C. Laubach: I made up a picture alphabet with pictures of objects whose names began with the different letters of the Burmese alphabet and whose shapes suggested the shapes of the corresponding letters.[7]

Laubach had already made up a set of pictures for the Burmese letters, but in several cases the distinguishing features of one letter as opposed to another did not appear to be an integral part of the accompanying picture. I felt that my alphabet might be more helpful as a tool for teaching young children than Laubach's had been: a teacher does not have to call attention to the difference between a *c* opening downward and a *c* opening to the right if the opening in each case is an integral part of the corresponding picture. An experiment carried out with a group of Burmese kindergarten children seemed to support my contention.

I have described both our Indonesian materials and our Burmese alphabet since the method that my wife and I have been using in teaching our own son to read derives from both. I have made up picture alphabets for both the capital letters and the small letters of English; with their aid, my son was able to learn the sounds of all the letters, both capital and small, in only three or four ten-minute sessions. In two or three more such sessions I was able to teach him numbers for all the vowel sounds, so that he can now produce any vowel sound if I say its number; but more than this, if I write down any consonant letter—say, for example, the letter *b*—and then call out a number, he can pronounce the syllable consisting of the *b* sound followed by the vowel sound I have indicated.

There is also a rhyming game at which he is very adept. I have prepared several sets of cards on each of which I have written a regularly spelled, one-syllable word, of the kind that one finds in Parts I and II of Bloomfield and Barnhart's *Let's Read.*[8] These cards are grouped into sets of words such that all of the words in any one set rhyme with each other (and, of course, end in the same two or three letters). I first show my son a card bearing a word or a meaningless syllable that rhymes with all the others in its set but which begins with the vowel letter instead of with a consonant (as, for example, the meaningless syllable *-ap*); after the child has named several words that he can think of himself which rhyme with

[7]See, for example, Frank C. Laubach, *Teaching the World to Read* (New York: Friendship Press, 1947), and also the workbook by Paul McKee and M. Lucile Harrison entitled *Learning Better Sounds* (Boston: Houghton Mifflin, 1957).

[8]Leonard Bloomfield and Clarence L. Barnhart, *Let's Read: A Linguistic Approach.* Detroit: Wayne State University Press, 1961.

the syllable I have shown him, I start turning over the cards in the set one at a time. He "wins" each card that he can read off before the next card is turned up.

## A New Kind of Primer

But the activities that I have described so far are merely games, not real reading. I must confess here that my son is not really eager to learn to read. He loves to be read *to*—and he has sensed the fact that learning to read by himself is going to be a slow and laborious process.

We have tried him out on one or two readers of the kind that are used in many first grades. He was attracted by the colorful pictures at first; but he quickly learned that such readers almost never tell exciting stories.

We have also tried him on sentences likes those to be found in Bloomfield and Barnhart's *Let's Read*—sentences of the *Pam had a tan bag* type. I must admit that he finds such sentences just as dull as those in the first-grade readers (and furthermore, there are no pictures in *Let's Read*). The only printed book which he has shown any interest in trying to read by himself so far is the Sullivan Associates' excellent *Programmed Reading Book 1*.[9]

But *Programmed Reading Book 1* does not tell a story. Something still different seems to be needed for children with interests like our son's, and at his stage of reading readiness. Such children need to discover that words which they can read themselves (and without too much effort) can add significantly to the plot of an interesting story. With this goal in mind, my wife and I have hit upon the scheme of telling (or of reading) a story in which short, important messages turn up at spaced intervals. These messages are crucially important to the plot—but they are also expressed in words which (with the exception of the articles) are all spelled regularly. Needless to say, the child being read to is supposed to read these messages aloud himself; they do not slow the story down too much since between each such message and the next there is more reading (or storytelling) by the adult. But as the story progresses, the sentences to be read by the child appear more frequently.

We have already written up one such "primer."[10] In this primer we have tried to bring together ideas for the teaching of reading that we have gleaned from primers of different kinds, printed in different countries around the world.

[9] Sullivan Associates. *Programed Reading Book 1.* New York: McGraw-Hill Book Company, 1963.

[10] See, for example, Frank C. Laubach, *Teaching the World to Read* (New York: Friendship Press, 1947), and also the workbook by Paul McKee and M. Lucile Harrison entitled *Learning Better Sounds* (Boston: Houghton Mifflin, 1957).

919.

294.



The contents of this book are based on what Her Majesty's Inspectors have seen in all parts of the country in recent years, and on discussions with teachers about their work and about the principles on which they act and the standards they achieve. . . . Its authors have selected from the mass of material available to them those ideas and practices which seem most worthy of consideration by teachers in primary schools at the present time.

### The Informal Approach

The first sub-heading in this book's section on "Reading and Writing" is entitled "An informal introduction to reading and writing." Also earlier in this book the authors give more precise suggestions which imply informal classroom organization. For instance,

The classroom should be a play-room, workroom and living room. . . . In some schools there are longer periods, used at the teacher's discretion, during which the children may be doing many different things, individually or in groups. In some the programme of each day appears to be much less clearly defined than in others, and what the children learn and how they learn seem to depend largely on immediate interests and unexpected opportunities. But, on closer investigation, it is generally found that, in fact, the apparent spontaneous interests and pursuits were not unforeseen by the teacher, though the children had all the satisfaction and incentive of feeling themselves to be the initiators and discoverers.

### Individualization

The second principle in *Primary Education* which notably influences classroom organization at this early stage is the great emphasis placed on individual differences in ability. For example:

To hold back an able child who has had at home many of the experiences which other children do not meet until they come to school, is to risk disheartenment and boredom. On the other hand, the preoccupation with reading shown by some young children is the product of their parents' anxiety, and too early a start on a primer may lead to disappointment and failure which can prejudice later attempts to read. In most infant classes, some children are likely to be reading fluently while others are most profitably occupied with books as part of their play.

### Classroom Organization in Practice

Observations suggest these two principles of informality and individualization are being applied by the majority of teachers of children at this age level,

Vol. 10,68

## 4. Classroom Organization in England

JOHN DOWNING
University of London

IN ENGLAND, there is a wide variety of organizational arrangements in our classrooms. No survey is available to tell us precisely how common are these various procedures, nor is there any pattern demanded by authority. The head teacher decides on the method to be used, and she usually extends this freedom of choice to class teachers. Thus it is very difficult to generalize about classroom organization in England, even though I am limiting my description to organization of the *beginning reading* classroom in the *Infants' School*.

### Principles of Classroom Organization in the English Infants' School

An important source of guidance for classroom policy in England is the advice given by Her Majesty's Inspectors (H.M.I.'s). For example, a book which has had wide influence on teachers is *Primary Education* compiled by H.M.I.'s.

Some idea of the manner in which school policies are implemented is indicated by the following extract:[1]

[1] *Primary Education*. London: Her Majesty's Stationery Office, 1959.

920.

although there are wide differences in their interpretation and success in application.

Recently, I observed the essence of these two principles in classroom practice when I made a day's observation of the work of a "reception class" in a typical state Infants' School in a working class council housing area on the edge of an industrial city. There were 134 boys and girls in four classes. The children are first admitted to school when they are five. Entry is possible three times a year, September, January, and April. Promotions to the neighboring Junior School are made once a year in September, when the qualifying age is seven.

The "reception class" contains the newest entries plus some of the children from the preceding term. In February there were thirty children on roll, 25 of whom had started in the previous September at ages 5 to 5¼. In January, five younger children joined the class.

The first ten minutes or so of the school day was spent on administrative matters and then the children joined the rest of the school for the religious assembly.

After assembly, the children began the activities in reading. However, it must not be thought that the chief emphasis of our infants' teachers is in training children in mechanical skills in the "Three 'R's." On the contrary, they are concerned with the whole development of the child.

Typical of the informal approach in English infants' schools, was the seating organization of this class. There were six nests of tables, each representing a group roughly homogeneous in terms of general ability but allowances being made for some children's social needs. These six groups did not correspond to levels of achievement in reading.

For purposes of grouping in reading the teacher had, at this point in time, ten "groups." The largest group contained six pupils and the smallest was, in fact, an individual child. The teacher heard each child read on this day, but she is not always able to do so.

Like many of her English colleagues, this reception class teacher does not have all the class working on reading at the same time. It is felt that individual help with reading needs closer attention from the teacher and that this can be given if only a proportion of the class is engaged on reading at any given time.

Therefore, when the children came in from assembly they found instructions on their tables. Two groups were given "reading," two "number" and two "news" (i.e. free composition).

During the morning, each group engaged in each activity in turn. For the reading activity each child worked "silently" in his social group.

The teacher called her reading groups to her own table to hear them read, and to give counsel and instruction. Besides this she gave individual attention to the children's needs in the other activities—numbers and writing. Altogether, about ninety minutes were taken up in these "3 R activities," although this period was by no means continuous. The afternoon was given over to art activities, play, and story-telling.

Opportunities for other informal activities relating reading to real life experiences were well used. For example, the children found their jobs in the refreshment break from written instructions. The expository method of instructing the whole class received typically rather little use, although discussion of songs, poems, stories, paintings was an activity for the whole class.

This has been necessarily an anecdotal account of classroom organization in England, because proper research is not available. In the meantime, our position is perhaps best represented by the words of William S. Gray.[2] In seeking to develop "self-reliant independent readers with well-balanced diversified interests" he said:

> This goal cannot be achieved through the advocacy and use of any one type of instruction, either group or individual. The types of materials and procedures used daily and throughout the school life of the child should be selected in the light of the varied needs to be served.

[2]William S. Gray. "Role of Group and Individualized Teaching in a Sound Reading Program," *The Reading Teacher* (1957), 11, pp. 99-108.

921.

295.

Vol. 8, 63

## L. International Aspects of Reading

# 1. Experiments with Pitman's Initial Teaching Alphabet in British Schools*

191. JOHN A. DOWNING

Sir James Pitman[1] designed the Initial Teaching Alphabet (also known as the "augmented Roman alphabet") as a more simple and more reliable alphabet for learning to read. His intention is that young beginners should use this until they have become confident and fluent in reading books printed in i|t|a, and that they then should transfer their skill and confidence to reading books printed in the traditional alphabet and spelling of English.

In planning our research into Pitman's i|t|a it seemed to us that we must seek evidence on two essential questions:

1. Is the traditional alphabet and spelling of English an important cause of failure in beginning reading?[2]
2. Can children transfer their reading skill from a simplified beginner's system to the conventional one, and if so, is the *final quality* of the reading *in the traditional alphabet and spelling* significantly superior to that obtained without the intervention of a special beginning reading alphabet?

### The i|t|a Experiment in Beginning Reading Classes

To answer those two basic questions we have established an experimental group of classes using i|t|a for their first instruction in reading and writing, and we are comparing their progress with that of control classes learning to read in the conventional way. Because the basic issues are related to the alphabet and spelling of English, we have attempted to cancel out all the other factors which have been shown to affect children's success and failure in learning to read. For example,

*Copyright 1963, Initial Teaching Alphabet Publications, Inc.

[1]I. J. Pitman, "Learning to Read: An Experiment." A paper to the Royal Society of Arts, November 23, 1960. (*R.S.A. Journal*, February, 1961, pp. 109, 149-180.)

[2]J. A. Downing, "The Relationship Between Reading Attainment and the Inconsistency of English Spelling at the Infants' School Stage," *British Journal of Educational Psychology*, 1962, pp. 32, 166-177.

922.

the teachers in both the experimental and control classes have been asked not to change their usual methods of teaching but to continue to use their normal instructional procedures. Also, the program of reading primers is the same in both groups, except for the essential difference that the experimental classes have theirs printed in i|t|a while the control classes use the same books in conventional print. Similarly, the control classes' libraries of conventionally printed books are paralleled in the experimental classes by a good selection of library books in i|t|a.[3]

We have taken special precautions against the so-called "Hawthorne Effect" —the motivation which is said to be produced in human subjects by the knowledge that their work or other behavior is being studied in research. The workshops, research meetings, and school visits necessary for the experimental classes testing i|t|a are matched by similar activities for the control classes.

In such ways, as well as with the careful matching of experimental and control classes, we are attempting to provide a reliable basis for obtaining objective data to answer those two important questions about the alphabet and spelling for beginning reading.

## Results up to March 31, 1963

Only the data on that part of the sample which began the experiment in September, 1961, can be reported at this time. Therefore it should be recognized that for this interim analysis,[4] although there appear to be no consistent differences in the composition of the experimental and control groups[5] which could account for the results we are about to report, comparisons have to be made between experimental and control schools which are not matched to the standards of precision which we have set ourselves in the complete project.

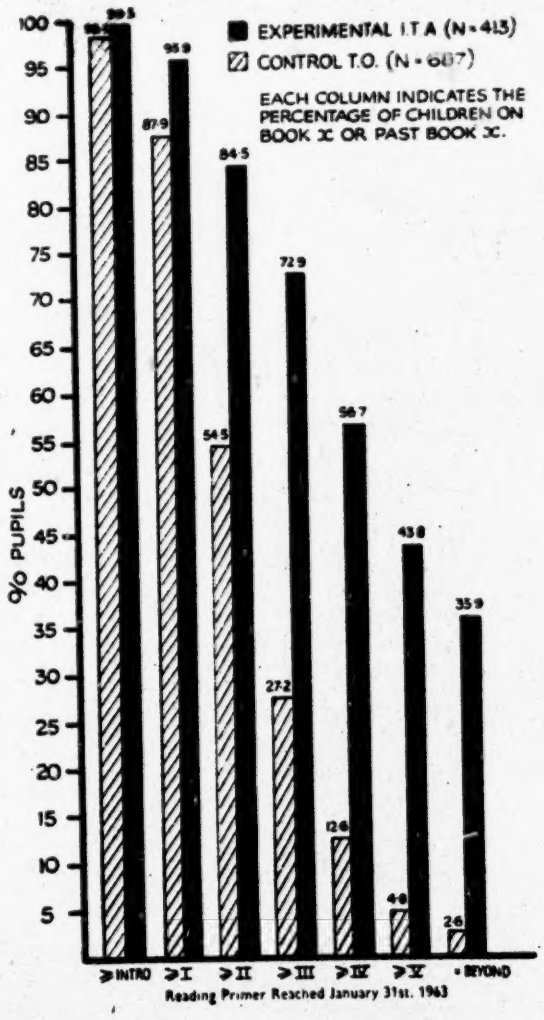
Provided that these limitations are borne in mind we may now take a cautious look at the way the answers to our two main questions seem to be coming out.

*Is the traditional alphabet and spelling of English an important cause of failure in beginning reading?*

Today, five items of evidence can be presented on this question;

**1. Progress through the reading program:** Figure 1 shows clearly how much more rapid the progress through the reading program is when it is printed in i|t|a. If these results are confirmed by our later analyses of the records from the total sample, it will be clear that *children*

FIGURE 1. Reading Primer Reached in the Middle of the Second School Year, January 31st, 1963. Control and Experimental (I.T.A.) Groups
(All pupils commenced school in September, 1961)

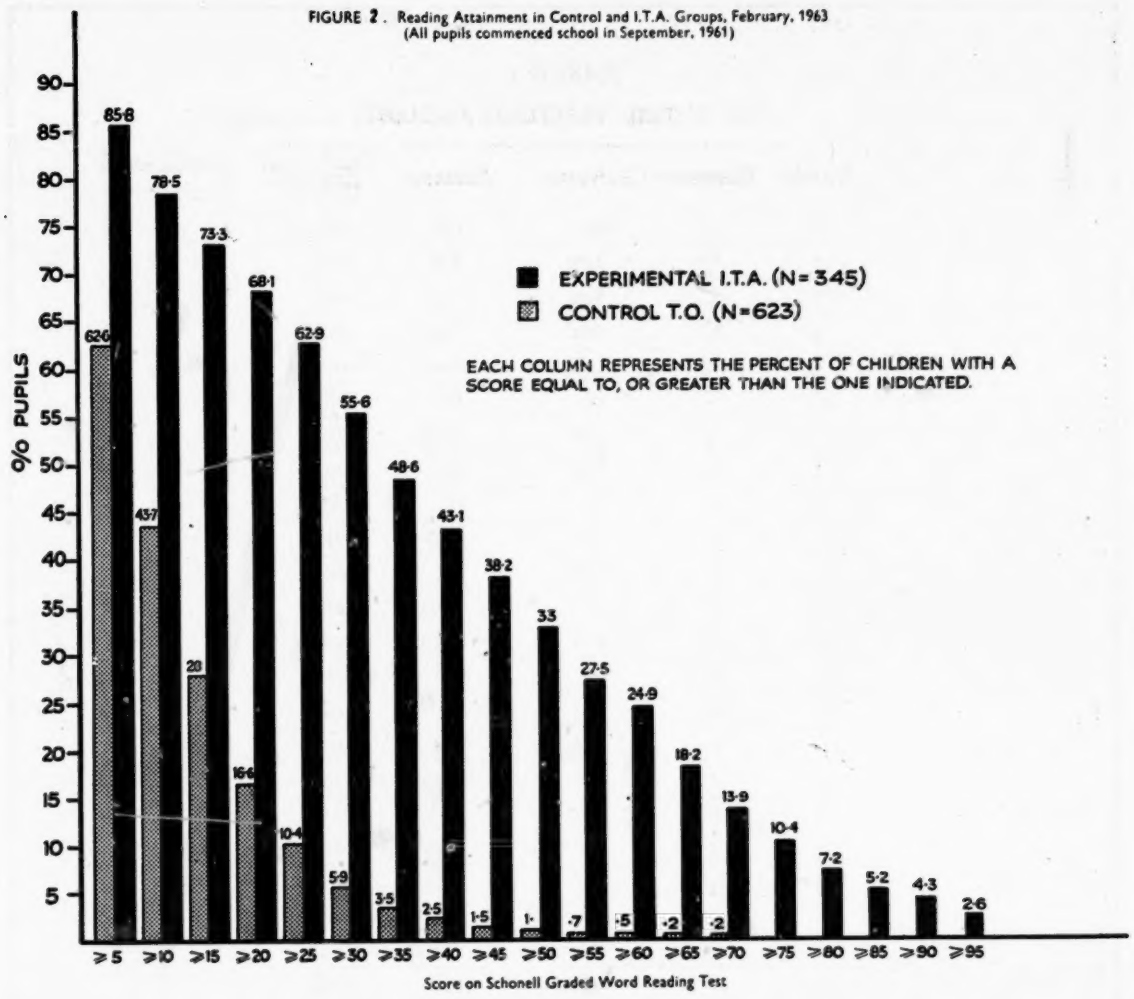



[3]Approximately 200 titles have been printed in i|t|a, and publishers are producing still more, taking advantage of the freedom of copyright, which has been made available by Pitman to all who adopt unchanged the designs of the i|t|a characters and of the spelling with it.

[4]The Reading Research Unit of the University of London Institute of Education gratefully acknowledges financial assistance from the Educational Records Bureau and the Grant Foundation which makes possible the presentation of this paper.

[5]A statistical description of the two groups is included in the unabridged version of this paper published by the Unversity of London Institute of Education.

FIGURE 2. Reading Attainment in Control and I.T.A. Groups, February, 1963
(All pupils commenced school in September, 1961)




*can learn to read much more rapidly when their beginning books are printed in Pitman's i|t|a,* and hence the use of the traditional alphabet and spelling for beginning reading does seriously retard children's progress into the world of books.

**2. The recognition of words in print:** In February, 1963, the standard version of Schonell's Graded Word Reading Test[6] in the traditional alphabet and spelling was administered to the control group while the experimental group took the same test transliterated into i|t|a. All conditions were held constant (e.g., size of print, test environment, etc.) apart from this single factor of the alphabet and spelling.

The results of these tests are given in Figure 2. They confirm those from the records of the children's progress through the primers of the reading program. At the end of one and a half school years the scores of the i|t|a group were very much higher than those of the control group. Figure 2 shows that this pattern holds throughout the various levels of scoring on the Schonell test, and that the superiority of the i|t|a groups represents a very significant difference from the attainments of the control pupils.

If the results of subsequent tests of the remainder of the sample confirm those presented above, we can be certain that *children can recognize very many more words in print when they are presented in Pitman's i|t|a,* and we may then conclude that the traditional alphabet and spelling do seriously frustrate children's attempts to translate those printed symbols into their own English language.

At this point we may pause to ask *how is it possible that this new alphabet can produce such great superiority in the scores of the i|t|a pupils?* What exactly

[6] F. Schonell, *Psychology and Teaching of Reading.* Edinburgh: Oliver & Boyd, 1949.

924.

*TABLE* 1

THE INITIAL TEACHING ALPHABET

| *Number* | *Character* | *Name* | *Example* | *Traditional spelling* |
|---|---|---|---|---|
| 1 | æ | ae | ræt | rate |
| 2 | b | bee | big | big |
| 3 | c | kee | cat | cat |
| 4 | d | dee | dog | dog |
| 5 | ɛɛ | ee | mɛɛt | meet |
| 6 | f | ef | fill | fill |
| 7 | g | gae | gun | gun |
| 8 | h | hae | hat | hat |
| 9 | ie | ie | tie | tie |
| 10 | j | jae | jelly | jelly |
| 11 | k | kae | kit | kit |
| 12 | l | el | lamp | lamp |
| 13 | m | em | man | man |
| 14 | n | en | net | net |
| 15 | œ | oe | tœ | toe |
| 16 | p | pee | pig | pig |
| 17 | r | rae | run | run |
| 18 | s | ess | sad | sad |
| 19 | t | tee | tap | tap |
| 20 | ue | ue | due | due |
| 21 | v | vee | van | van |
| 22 | w | wae | will | will |
| 23 | y | i-ae | yell | yell |
| 24 | z | zed or zee | fizz | fizz |
| 25 | ƶ | zess | houseƶ | houses |
| 26 | wh | whae | when | when |
| 27 | ʗh | chae | ʗhick | chick |
| 28 | ʯh | ith | ʯhaut | thought |
| 29 | ðh | thee | ðhe | the |
| 30 | ʃh | ish | ʃhip | ship |
| 31 | ʒ | zhee | meʒuer | measure |
| 32 | ŋ | ing | siŋ | sing |
| 33 | ɑ | ah | fɑr | far |
| 34 | au | au | autum | autumn |
| 35 | a | at | appl | apple |
| 36 | e | et | egg | egg |
| 37 | i | it | dip | dip |
| 38 | o | ot | hot | hot |
| 39 | u | ut | ugly | ugly |
| 40 | ʊ | oot | bʊk | book |
| 41 | ʊʊ | oo | mʊʊn | moon |
| 42 | ɑu | ow | bɑu | bough |
| 43 | ɔi | oi | tɔi | toy |

925

*TABLE 2*

| *Traditional Orthography* | *Pitman's Initial Teaching Alphabet* |
|---|---|
| beg | beg |
| beg | beg |
| Beg | beg |
| Beg | beg |
| BEG | beg |

*TABLE 3*

| *Traditional Orthography* | | *Pitman's Initial Teaching Alphabet* | |
|---|---|---|---|
| 1. u | ruby (and in RUBY) | 1. ɷ | rɷby |
| 2. u..e | rule | | rɷl |
| 3. U..E | RULE | | rɷl |
| 4. o | do (and in DO) | | dɷ |
| 5. o..e | move | | mɷv |
| 6. O..E | MOVE | | mɷv |
| 7. ui | fruit (and in FRUIT) | | frɷt |
| 8. ui..e | bruise | | brɷs |
| 9. UI..E | BRUISE | | brɷs |
| 10. ou | group (and in GROUP) | | grɷp |
| 11. ou..e | route | | rɷt |
| 12. OU..E | ROUTE | | rɷt |
| 13. ough | through | | thrɷ |
| 14. OUGH | THROUGH | | thrɷ |
| 15. oo | moon (and in MOON) | | mɷn |
| 16. ooe | wooed | | wɷd |
| 17. OOE | WOOED | | wɷd |
| 18. oo..e | ooze | | ɷs |
| 19. OO..E | OOZE | | ɷs |
| 20. heu | rheumatism | | rɷmatism |
| 21. HEU | RHEUMATISM | | rɷmatism |
| 22. ue | flue | | flɷ |
| 23. UE | FLUE | | flɷ |
| 24. eu | maneuver | | manɷver |
| 25. EU | MANEUVER | | manɷver |
| 26. ew | grew | | grɷ |
| 27. EW | GREW | | grɷ |
| 28. oe | canoe | | canɷ |
| 29. OE | CANOE | | canɷ |
| 30. wo | two (and in TWO) | | tɷ |
| *TOTAL* 30 | | *TOTAL* 1 | |

926

are the simplifications and systematizations of i|t|a which caused 56 per cent of the i|t|a group as compared with 6 per cent of the control group to reach the score of 30-plus on the Schonell test after only one and a half years of schooling?

Briefly,[7] the young beginner's initial burden of learning is greatly lightened in i|t|a: the ambiguity of conventional spelling is drastically reduced, and i|t|a's coding of the basic sound units of English is much less complex.

The young beginner's initial burden of learning is reduced in three ways through i|t|a:

*i. Fewer Characters.*

Table 1 shows the i|t|a has 43 characters which is, in fact, fewer than the number children have to learn if they are to cope with conventionally printed books. i|t|a has only one[8] form for each character, not two or more as in the traditional alphabet (e.g., b only instead of B and b; e only instead of E and e; g only instead of G, g and g, etc.).

*ii. Fewer Whole Word Representations*

Each whole word in i|t|a has one single visual form as compared with an average of three alternatives for each word in conventional print. See, for example, how i|t|a reduces five alternative forms to only one (Table 2).

*iii. Fewer Phonic Symbols in i|t|a*

In i|t|a the beginner has to learn less than 50 elementary phonic facts as a foundation for word-building, as compared with some hundreds of alternatives in conventional lower-case print alone and over 2,000 if conventional capitals and script characters are taken into account. Table 3 gives an example of how this great reduction in the beginner's burden of learning is achieved in i|t|a. The sound common to words like *two, zoo, fleu, shoe* has at least 18 different lower-case spellings plus 12 upper-case alternatives in conventional print. In i|t|a these 30 or more alternatives are reduced to one single printed symbol for this one single basic unit of sound.

In these three ways i|t|a greatly lightens the burden of learning which the beginner must bear before finding the key to interesting and pleasurable reading. This reduction in alternatives, of course, brings with it a much greater frequency of repetition of the items to be learned in the i|t|a system. It also reduces the risk that pupils may become confused by the variety of different ways of signalling the same sound or word.

In i|t|a, children are not faced with the kind of ambiguity produced by the erratic use of the letter *o* in words such as those shown in Table 4. In the i|t|a version of these words the letter *o* is used only once because the sound it represents occurs only once. Where *other sounds* occur they are appropriately signaled by *other letters.*

Another type of ambiguity is also removed in i|t|a. In conventional English spelling, the basic left-to-right rule of reading is broken in words like *mine.* In i|t|a this left-to-right rule is never broken. Table 6 shows how i|t|a removes the ambiguity of reading directions of conventional print.

In i|t|a phonic symbols are less complex. Children do not have to learn that the *c* in *cat* and the *h* in *hat* represent quite a different sound at the beginning of *chat* just because in traditional print there is no letter for that different sound. In i|t|a, that different sound is provided with its own different letter. Other sounds which have no letter of their own have been provided with their own particular letters in i|t|a. They are learned as individual letters in their own right, representing their own special sounds. (Further examples are given in Table 5.)

When we realize how much more simple and how much more reliable i|t|a is, then the fact that 56 per cent of the beginning readers can read in i|t|a what only 6 per cent can read in the traditional alphabet and spelling no longer seems incredible.

---

[7] A full exposition of the features of i|t|a has been given by the writer elsewhere: J. A. Downing, tω bεε *or not to be: The Augmented Roman Alphabet.* New York: Pitman, 1962.

[8] Capitalization is achieved by making a larger version of the *same lower-case shape* — lower-case because the ascenders and descenders are thought to provide maximum visual discrimination and because they occur very much more frequently than upper-case letters in traditionally printed books which beginners, using i|t|a, may see incidentally and to which they later transfer their reading skill.

927.

*TABLE 4*

| *Traditional Orthography* | *Pitman's Initial Teaching Alphabet* |
|---|---|
| move | mœv |
| cove | cœv |
| gone | gon |
| one | wun |
| women | wimen |

*TABLE 5*

| *Traditional Orthography* | *Pitman's Initial Teaching Alphabet* |
|---|---|
| cat | cat |
| hat | hat |
| chat | ċhat |
| which | whiċh |
| thigh | ṫhie |
| thy | ṫhie |

*TABLE 6*

| *Traditional Orthography* | *Pitman's Initial Teaching Alphabet* |
|---|---|
| mine | mien |
| bone | bœn |
| lane | læn |
| tune | tuen |

**3. Accurate recognition of continuous passages of printed English:** The Neale[9] Analysis of Reading Ability, a comprehensive reading test consisting of six passages of English narrative prose, has been used to determine the experimental and control pupils' *accuracy* in reading *continuous* English.

The control pupils were given the standard edition of Form C, while the experimental group took the identical test except for its being transliterated into i|t|a. The tests were conducted on a subsample consisting of pupils in seven well-matched pairs of experimental and control schools. All the children were halfway through their second year at school when tested in February, 1963.

The Neale reading accuracy measure provided results which confirm those from the Schonell tests. Figure 3 clearly indicates the superiority of the i|t|a pupils. If the results of subsequent tests of extensions of this subsample parallel these, we may conclude that *children can accurately read continuous English prose much more readily if it is printed in Pitman's i|t|a,* and hence that the conventional English alphabet and spelling do seriously frustrate beginners' attempts to read narrative passages accurately.

**4. Comprehension:** *But do the i|t|a*

[9]M. D. Neale. *Neale Analysis of Reading Ability.* London: Macmillan & Co., Ltd., 1963.

928

*children comprehend the additional words and sentences these tests show they can "read"?*

The Neale Analysis measure of comprehension consists of forty-four questions about the meaning of the six test passages. Figure 4 shows that the i|t|a group's comprehension scores are *significantly superior* to those of the control group. If these findings are confirmed by our future studies of the extension of this subsample, we may conclude that *i|t|a significantly closes the gap between children's listening comprehension and their reading comprehension.* This evidence that i|t|a gives children greater freedom to understand continuous English in print supports the view that the conventional alphabet and spelling of English represent a serious barrier to young beginners' comprehension in reading narrative prose. It seems that young English-speaking children are being deprived of enjoyment and interest in reading books because many words well within their listening comprehension are locked away from them in reading by the difficulties of the conventional alphabet and spelling.

**5. Speed of Reading:** The Neale tests were timed in accordance with the procedure laid down by their author, with the results shown in Figure 5. The i|t|a children read significantly faster than the control children. If extensions of this testing to a wider sample produce similar results it will be clear that *young children can read faster when their books are printed in i|t|a.* Hence we shall be able to conclude that the difficulties of the conventional English alphabet and spelling cause young beginners to slow down their rate of reading. To judge the importance of this finding, it should be related to the more limited span of attention and perseverance of such very young pupils.

Summing up this preliminary evidence on the first question, we have the following tentative findings. If i|t|a is used, then:

- Young children get through their beginning reading program faster.
- They can recognize more words in print.
- They can accurately read continuous English prose more readily.
- They can comprehend more continuous English in print.
- They can read faster.

The conventional alphabet and spelling of English in control classes have been shown to:

- delay progress in the reading program
- frustrate the recognition of words in print
- impede the development of skill in reading continuous English prose
- cut children off from words within their range of comprehension
- reduce their speed of reading

The impediment caused by the conventional alphabet and spelling appears to go beyond erecting barriers to success in these various aspects of reading. Head teachers[10] of the experimental schools have reported that i|t|a not only accelerates progress and raises reading standards but it also brings with it certain other advantages:

- It raises the young beginner's level of self-confidence.
- It increases enthusiasm for reading and interest in books.
- It allows children to be more independent in their work.
- It results in a marked improvement in creative writing.

The influence of the alphabet and spelling at the beginning reading stage thus seems to be very wide. If these interim findings are found to apply to the wider sample we are investigating, it may not be unreasonable to conclude that the use of the conventional alphabet and spelling for reading and writing at the beginning stage so seriously overloads the young child that not only does he fail to achieve as well as he might in these subjects, but also his appreciation of and his own creativity in written English lose much of the joy they might otherwise hold for him.

*Can children transfer their reading skill from i|t|a to the traditional alphabet and spelling, and if so, are their attain-*

[10]A fuller report is given in: J. A. Downing, *Experiments with an Augmented Alphabet for Beginning Readers in British Schools.* New York: Educational Records Bureau, 1962.

929

FIGURE 3. Reading Attainment in Selected Schools
(i) Accuracy measured by Neale Analysis of Reading Ability (Form C), February, 1963.
(All pupils commenced school in September, 1961)

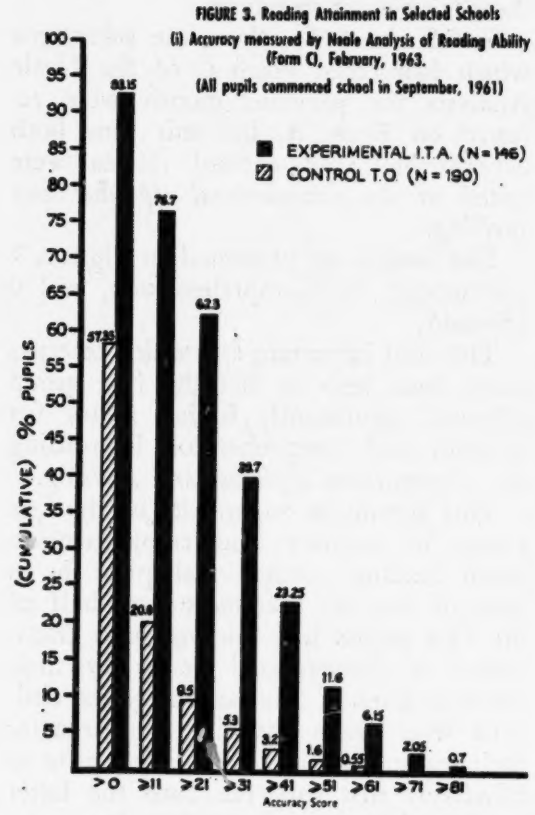



FIGURE 4. Reading Attainment in Selected Schools
(ii) Comprehension measured by Neale Analysis of Reading Ability (Form C), February, 1963.
(All pupils commenced school in September, 1961)

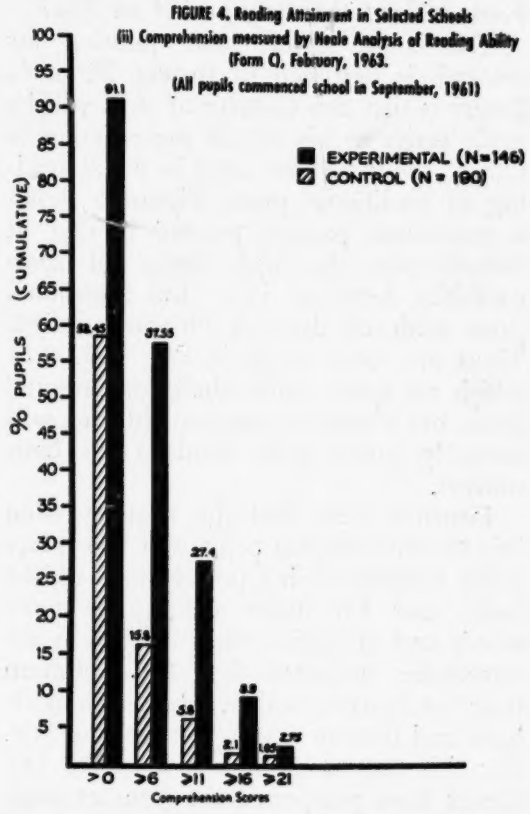
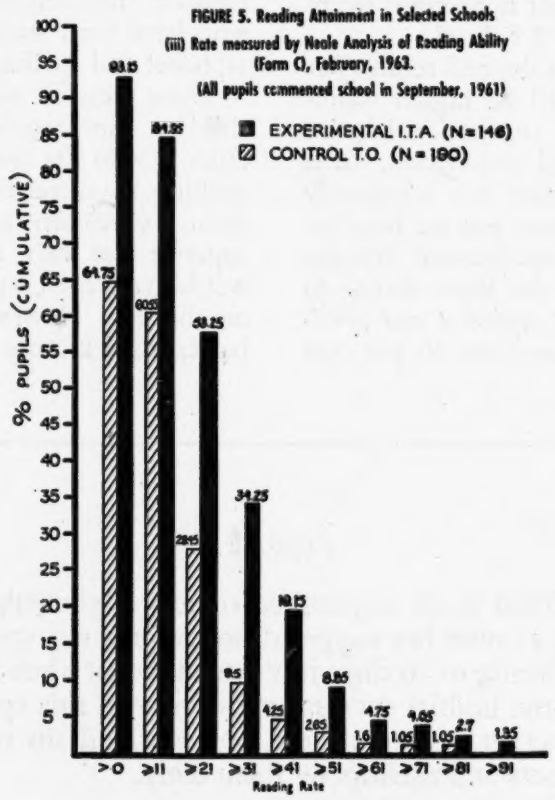



FIGURE 5. Reading Attainment in Selected Schools
(iii) Rate measured by Neale Analysis of Reading Ability (Form C), February, 1963.
(All pupils commenced school in September, 1961)




930

*ments superior to what they would have been without the early period on i|t|a?*

This is the second basic question our research is designed to answer. Pitman's theory is that this transfer of skill will be made easier by his careful preservation in i|t|a of the main cues used in fluent reading of traditional print. Figure 6 shows a continuous passage printed in i|t|a. It demonstrates the high degree of compatibility between i|t|a and traditional print achieved through Pitman's design. There are some words in i|t|a (e.g. cof) which are quite unlike their conventional form, but Pitman claims that children will correctly guess such words from their context.

Pitman's view that the transfer from i|t|a to conventional print will take place easily because of his preservation of the main cues for fluent reading in most words and through contextual cues in the remainder indicates that the optimum time for transfer will be when such skills have had time to develop in reading i|t|a. For this reason the teachers in the i|t|a classes have postponed the transfer stage until the individual pupil has demonstrated his readiness for it by rapid fluent reading at the primer 2 ii level.

Pitman believes that the end result *after transfer* from i|t|a will be higher standards of reading in conventional print throughout the school population. It is clearly too early to test this adequately after less than two years, but we have recently tested *all* the experimental i|t|a pupils in seven classes on their ability to read *the conventional alphabet and spelling*, although not more than 40 per cent of them had been taken off i|t|a books by their teachers at this time.

In March, 1963, the same subsample which had taken Form C of the Neale Analysis the previous month were retested on Form A, but this time both experimental and control classes were tested *in the conventional alphabet and spelling*.

The results are presented in Figures 7 (Accuracy), 8 (Comprehension), and 9 (Speed).

The most important fact which emerges from these tests is that the i|t|a group achieved significantly higher scores for accuracy and comprehension in reading *the conventional alphabet and spelling*.

This significant superiority of the i|t|a group in accuracy and comprehension when reading conventional print is in spite of the fact that more than half of the i|t|a pupils had not yet been transferred to conventional books by their teachers. Even at this early stage the children who began with i|t|a can transfer their reading skill to conventional print so effectively that they can read the latter with much greater accuracy and comprehension than the control group pupils, who have been learning the conventional alphabet and spelling from the beginning.

These results seem to indicate that children can transfer their reading skill from i|t|a to the traditional alphabet and spelling so successfully that their attainments *in reading conventional print* are superior (*at this stage*) to what they would have been without the early period on the i|t|a. However, this finding must be regarded as only tentative at this point

*Figure* **6**

ðis is printed in an augmented rœman alfabet, ðe purpos ov which is not, as miet bee suppœsd, tœ reform our spelliŋ, but tœ imprœv ðe lerniŋ ov reediŋ. it is intended ðat when ðe beginner has aċheevd ðe iniſhial sucsess ov flœensy in ðis speſhially eesy form, his fuetuer progress ſhœd bee confiend tœ reediŋ in ðe present alfabets and spelliŋs ov ðem œnly.

931

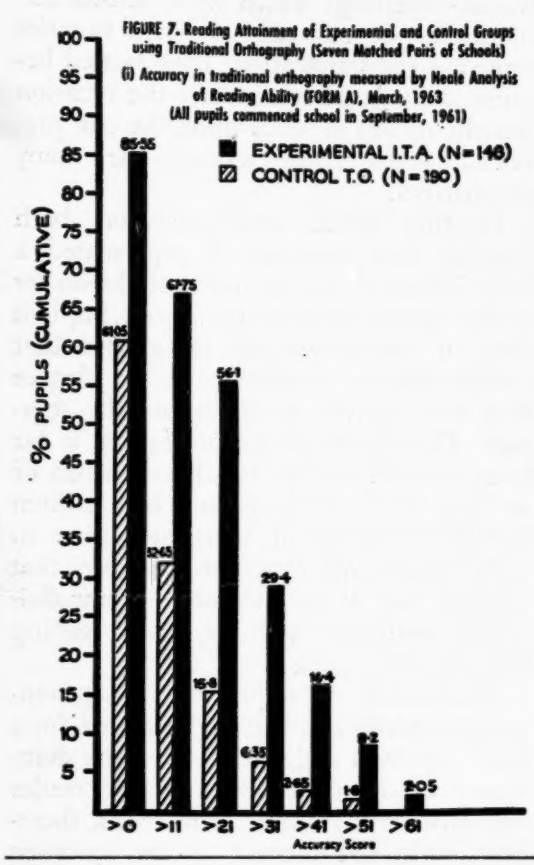



FIGURE 7. Reading Attainment of Experimental and Control Groups using Traditional Orthography (Seven Matched Pairs of Schools)
(i) Accuracy in traditional orthography measured by Neale Analysis of Reading Ability (FORM A), March, 1963
(All pupils commenced school in September, 1961)

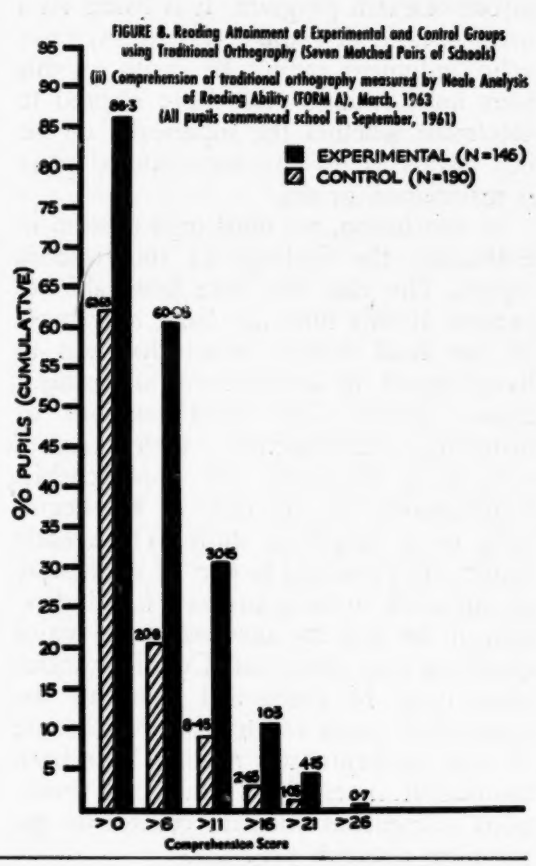



FIGURE 8. Reading Attainment of Experimental and Control Groups using Traditional Orthography (Seven Matched Pairs of Schools)
(ii) Comprehension of traditional orthography measured by Neale Analysis of Reading Ability (FORM A), March, 1963
(All pupils commenced school in September, 1961)

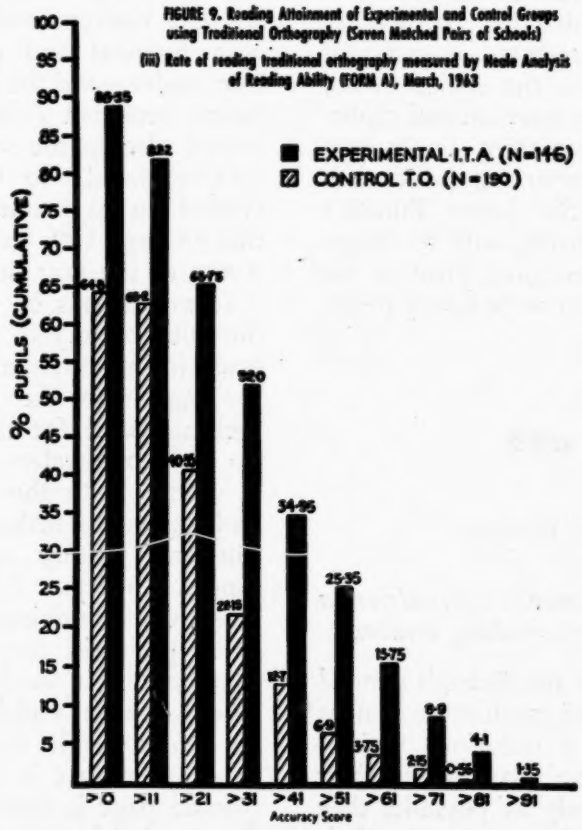



FIGURE 9. Reading Attainment of Experimental and Control Groups using Traditional Orthography (Seven Matched Pairs of Schools)
(iii) Rate of reading traditional orthography measured by Neale Analysis of Reading Ability (FORM A), March, 1963



in our research program. It is based on a small sample of pupils, and in any case, valid judgment cannot be made on this issue until enough years have elapsed to determine whether the superiority of the i|t|a pupils in reading conventional print is maintained or not.

In conclusion, we must urge caution in evaluating the findings of this interim report. The data we have been able to present at this time are from a segment of our total sample which happens to have entered the experimental and control classes earliest. The ideal standard of matching experimental with control schools is therefore not approachable. Furthermore, we are only at the beginning of a long-term study. These early results are presented as part of the history of our work to date, and as a first indication of the way the answers to the major questions may come out. Definite conclusions must be postponed until all the many vital issues connected with the use of i|t|a for beginning reading have been thoroughly investigated under the conditions of rigorous scientific control of our complete research program.

At the time of writing this paper we would only submit that the preliminary evidence we have presented is sufficient to bring this issue to the notice of all reading teachers. The conventional alphabet and spelling in beginners' books does appear to be an important cause of reading difficulty, and Sir James Pitman's Initial Teaching Alphabet, with its design for transfer to conventional print at the later stage, does appear to be a very promising solution.

932.

296.

Vol. 10, 65

# 2. Reading Instruction in the United Arab Republic

AHMED A. FAREED 392.
University of Chicago

THE ARABIC language has its unique features that make it quite different from many other languages, including English. It has its own alphabet, sound structure, and grammatical system. It is written from right to left, and in both its printed and handwritten forms most of the letters are attached to each other. Most of its letters have three shapes: at the beginning, in the middle, and at the end of a word. On the other hand, some letters are differentiated from one another by just one or more dots above or below the letter.

In Arabic, there are no equivalent written symbols for short vowel sounds. However, for the beginners, some vowel points are added above or beneath consonants to designate short vowel sounds associated with these consonants. Yet, these signs are gradually omitted in advanced reading materials.



Moreover, there is a dichotomy between the colloquial Arabic used for the spoken purposes of everyday life and the classic language used for all written and formal purposes. Nevertheless, due to the spread of mass-media services and to the expansion in educational opportunities among people, a simple modern Arabic has gradually emerged, thus narrowing the gap between classic and colloquial Arabic.

These unique characteristics of the language constitute a real problem not only for the child who attempts to learn how to read, but also for the educator who attempts to devise teaching methods or construct reading materials.

## Initial Reading Instruction

In the United Arab Republic, since the beginning of the twentieth century, the history of teaching initial reading has passed through different stages:

Before 1940, the synthetic approach was dominant. Early primers used the alphabetic method, whereas later ones used the phonic method or a combination of both. Teaching reading was seen as merely teaching the mechanics of word recognition and developing fluency in oral reading.

Around 1940, many voices were raised claiming that Arabic teaching should be simplified. These claims coincided with the translation of Gestalt principles into Arabic, and with the increasing conviction among professors of education that the "whole method" is the natural way of learning to read any language, including Arabic. An experiment was carried out in a kindergarten in Cairo, comparing the "whole" and the "phonic" methods in teaching Arabic reading. In 1948, its results were reported favoring the "whole method," in terms of rate, comprehension, and fluency of reading.

In 1954, a reading series representing the "whole method" was published for use in the first four primary grades. It was prescribed by the Ministry of Education and used in all Egyptian primary schools. This was the first Arabic series to be based on a clear philosophy about the method, to have a teacher's manual, to adopt a broad concept of reading, and to choose its content from children's experiences.

In practice, the book did not result in improving children's reading. On the contrary, children memorized its stories, and even in the sixth grade they were unable to read smoothly or independently. The situation resulted in a severe blow being struck against the book and the method by parents as well as teachers. It was argued that Arabic is highly phonetic, and therefore the "whole method" does not go along with the language nature.

Actually, the new method was not the major cause for this failure. On the one hand, two different experiments were made in U.A.R. in 1951, and 1958, and the findings substantiated the conclusion that the "whole method" is suitable for beginning Arabic reading. On the other hand, despite the fact that Arabic is a phonetic language, it has, by its nature, many words including letters that are not pronounced, and many other words including sounds that have no equivalent symbols in their written form. The failure in reading instruction in this period may be attributed mainly to the non-preparation of teachers and inspectors to use the new book, the non-specificity of the teacher's manual in dealing with different stages of the method, and the non-existence of workbooks to help train children in phonic and structural analysis.

To solve the problem, the U.A.R. Ministry of Education carried out a comprehensive survey in 1959 to pinpoint the major causes of low reading achievement, to determine the method that suits the Arabic language, and to delineate new specifications for new reading series. A nationwide evaluative study was conducted, reading books in use were analyzed, and suggestions were secured from teachers, inspectors, administrators, and experts in reading, Arabic, education, and psychology.

In 1960, four reading series were constructed; each contains a primer, follow-up reading books, workbooks, and a detailed manual for teachers. The four series used simple modern Arabic, derived their contents from the children's own lives and experiences, and took into account their needs and interests. These series have been in use in U.A.R. since 1961. But before they were placed in children's hands, in-service training programs were held for teachers and inspectors in

933.

Moreover, there is a dichotomy between the colloquial Arabic used for the spoken purposes of everyday life and the classic language used for all written and formal purposes. Nevertheless, due to the spread of mass-media services and to the expansion in educational opportunities among people, a simple modern Arabic has gradually emerged, thus narrowing the gap between classic and colloquial Arabic.

These unique characteristics of the lan-

improving children's reading.On the contrary, children memorized its stories, and even in the sixth grade they were unable to read smoothly or independently. The situation resulted in a severe blow being struck against the book and the method by parents as well as teachers. It was argued that Arabic is highly phonetic, and therefore the "whole method" does not go along with the language nature.

Actually, the new method was not the major cause for this failure. On the one hand, two different experiments were made in U.A.R. in 1951, and 1958, and the findings substantiated the conclusion that the "whole method" is suitable for beginning Arabic reading. On the other hand, despite the fact that Arabic is a phonetic language, it has, by its nature, many words including letters that are not pronounced, and many other words including sounds that have no equivalent symbols in their written form. The failure in reading instruction in this period may be attributed mainly to the non-preparation of teachers and inspectors to use the new book, the non-specificity of the teacher's manual in dealing with different stages of the method, and the non-existence of workbooks to help train children in phonic and structural analysis.

To solve the problem, the U.A.R. Ministry of Education carried out a comprehensive survey in 1959 to pinpoint the major causes of low reading achievement, to determine the method that suits the Arabic language, and to delineate new specifications for new reading series. A nationwide evaluative study was conducted, reading books in use were analyzed, and suggestions were secured from teachers, inspectors, administrators, and experts in reading, Arabic, education, and psychology.

In 1960, four reading series were constructed; each contains a primer, follow-up reading books, workbooks, and a detailed manual for teachers. The four series used simple modern Arabic, derived their contents from the children's own lives and experiences, and took into account their needs and interests. These series have been in use in U.A.R. since 1961. But before they were placed in children's hands, in-service training programs were held for teachers and inspectors in

934.

297.

Vol. 9, 64

# B. INTERNATIONAL ASPECTS OF READING

## 1. Teaching Reading in East Africa

EDWARD FRY

READING INSTRUCTION in East Africa is beset with many problems, not the least of which are those created by the shift in language midway in the child's education. Children start elementary school in their tribal tongues and, after several years, begin a gradual transfer to instruction and literacy in English. The author spent the academic year 1961-1962 at the University of East Africa in Kampala, Uganda as a Fulbright Lecturer, which afforded the opportunity for an informal look at the local educational program and the opportunity to develop and teach a reading improvement course for first year university students and last year secondary students.

### Education in East Africa

In East Africa reading instruction is begun in the vernacular. In the coastal regions the vernacular is usually Swahili, which is a kind of lingua franca for many tribal areas. However, a majority of the students learn to read in the tongue of their tribe. For example in Uganda there are six tribal tongues. Most of the East African languages have a Bantu base, but many are quite as different as English and German.

In the city schools children enter first grade at the age of approximately six or seven, but in the up-country schools there is a considerably wider range of entrance ages. I visited one mission station first grade which had an age range of 5 to 22.

Theoretically, English instruction is begun in the third grade. However, this instruction is usually of a very poor quality as the teacher herself, or more frequently himself, often only knows a few words of English. At about the end of the third year a small English primer is introduced. The most widely used series of English reading texts is known as "The Oxford English Readers." These books

935.

are similar to U. S. reading books only they are much thinner and do not have as gradual a progression of difficulty levels.

Beginning reading instruction in the vernacular in the up-country schools is usually started with the "alphabet method." The students are taught to write and chant their alphabet. In the more modern schools in the large cities reading methods more closely resemble those found in the United States. Perhaps there is a bit more emphasis on phonics and drill methods. In the upper grades and secondary schools reading comprehension is frequently taught by precis writing. This method is used because it most closely parallels the testing method used in the national school leaving examinations.

In the junior high schools English is theoretically the medium of instruction. The reason for this is that students from different tribal elementary schools may be merged in a single junior high school. Also, these schools are seen as preparation for the senior high school in which English is in fact the medium of instruction. In actual practice junior high schools use a good bit of vernacular as an instructional medium, and hence the junior high school becomes the transition zone from instruction in vernacular to instruction in English.

Education is far from universal. In Uganda about 60 per cent of the population gets four years of education. The figure would be slightly higher in Kenya and slightly lower in Tanganyika. There is a tremendous selection process between elementary and secondary schools. Only four per cent of the age group is in secondary schools. At the university level the figure drops to considerably less than one per cent.

## Reading Course

My assignment at the University of East Africa was to develop a short non-credit reading improvement course for university and senior high school students. The university faculty had recognized for some time that the students were extremely slow in reading and lacked some comprehension skills. After fumbling for about one semester with a group of art students I developed a ten-week course which included reading speed, comprehension, and study skills. The course met for two one-hour periods per week. Each meeting contained a short lecture on the ten topics listed below. The first meeting of each week had a timed reading speed and comprehension drill. The students plotted their reading speed and comprehension on a graph. About 20 minutes of the second period each week was devoted to tachistoscope drill in which a word or phrase was flashed, the students wrote what they saw, and the word was shown again for correction and sometimes discussion. The ten lecture topics were:

1. The Importance of Reading Faster
2. Common Faults and Eye Movements
3. Comprehension
4. Units of Meaning
5. Skimming and Reading Flexibility
6. Improvement Patterns
7. Study Techniques and Factors in Memory
8. Vision
9. Phonics
10. Vocabulary and Continued Reading Progress

## Vision Testing

As part of the course a simple vision screening test was developed which consisted of measuring far point acuity, screening for hyperopia and screening for binocular coordination. Interestingly enough almost a third of the students failed these simple screening tests and were referred to a vision specialist.

## Results of Training

Results of the ten week reading improvement course showed that African university students had doubled their reading speed and made a slight gain in comprehension. This is about the same rate of gain as U. S. college students taking similar courses. The actual words per minute scores went from 188 wpm to 383 wpm while the comprehension moved from 55 per cent to 72 per cent. These word per minute scores are a little slower than one would expect from U. S. university students but one must remember that these students were reading in a second language, and in many instances came from schools of extreme poverty. The

255.



final semester that I was at the University of East Africa I prepared a teacher's manual and students' drill book so that the course could be continued under the guidance of an African teacher. These materials have been published by Cambridge University Press and I am happy to say are now used in many countries.

Finally, I would like to encourage my fellow members of the International Reading Association to teach abroad some time in their careers. There are many opportunities now open. College personnel are needed in universities, and secondary schools and elementary administrative personnel can be used in high schools and teacher training institutions. Personnally I found the Fulbright program most satisfactory; further information on it can be obtained by writing the State Department in Washington. There are numerous other opportunities through other government agencies such as the Peace Corps and AID, or teachers may apply directly to the governments of the country in which they are interested. Many African governments welcome applications from United States trained teachers.

## REFERENCES

Fry, Edward. *Teaching Faster Reading, a Manual.* Cambridg University Press, New York, 1963.

Fry, Edward. *Faster Reading, A Drill Book.* Cambridge University Press, New York, 1963.

Fry, Edward. *Instant Words and Instant Word Phrases* (filmstrips for tachistoscope). Learning Through Seeing, Sunland, California, 1957.

936.

298.

Vol. 8, 63

# 4. Reading Instruction in Puerto Rico

208.

ELSA GELPI

No one who is really interested in the transformation that has occurred in Puerto Rico can fail to realize that during the last twenty years it has become the crossroad of two of the most vigorous cultures of the modern world. The presence of such powerful forces in any social group inevitably brings out conflicting issues. But the meeting of the Spanish and American cultures has also brought forth much that is good for the island.

In the field of education, which is probably one of the areas most influenced by the presence of the two cultures, Puerto Rico stands out for its challenging task of teaching in two languages. The island is engaged at this very moment in revising its entire educational system in order to direct its teaching efforts towards the development of four basic values: respect for freedom, respect for human rights, attainment of a democratic way of living and a full and happy life.[1]

Included in the revision is the decision to intensify the teaching of both languages, for the teaching of these languages has been closely related to our life for sixty-five years and has affected all our teaching, especially reading.

[1]Ismael R. Bou, *The Educational System of P. R.*, Summary. University of Puerto Rico, 1961, p. 10.

## Historical Background

Soon after Puerto Rico became an American possession, American educators on the island initiated a series of language policies which shifted the medium of instruction from one language to another in an effort to find a satisfactory way of teaching both languages. It wasn't until 1948 that Spanish became the medium of instruction and English became a second language. These successive changes of policy brought about serious setbacks in the educational development of the country because methodology and materials were changed whenever policies changed.

Reading methods followed the procedures used in the United States. On many occasions, the new methods were first tried in English and later adopted in Spanish. The results of these policies were evident in 1935 when speed and comprehension tests were administered to the children and serious deficiencies were discovered, especially at the secondary level. Alarmed by this revelation, the Department of Instruction consulted Dr. William S. Gray who after studying the situation suggested placing more emphasis on the teaching of Spanish.[2]

A new Spanish language program was started under the direction of Dr. Carmen Gómez Tejera in 1938. Later, a series of elementary school readers was published by Francisco Gaztambide and a study of the language arts for elementary grades was published by Dr. Antonia Sáez. But again the school system had to be reorganized to accommodate the junior high school. This reorganization plus the enormous amount of students who enrolled in the schools after the government provided free education, plus the return of thousands of veterans, created a very difficult situation. There was a shortage of reading materials and a dearth of well-trained teachers. In addition to these problems, the island began to change from an agrarian to an industrial community. Such a change made the revision of the curriculum necessary. At this same time the island realized that to make effective use of its location between North and South America, command of both languages was im-

[2]William S. Gray, *The Teaching of English in P. R.* Report sent to Dr. J. Padin, March 25, 1936, p. 2.

937.

perative. With the election of the first Puerto Rican governor, political issues which had hampered the teaching of both languages began to disappear and a major revision of the English-language program was started. Following the advice of famous linguists, English began to be taught by the audio-lingual approach. Listening and speaking was practiced before reading and writing was introduced. The use of the new approach brought about changes in the materials, methods of teaching and teacher training.

Language materials were constructed first. The *Fries American Series* was designed to teach language to Puerto Rican children. At present, reading is not introduced until the third grade. At this level it consists mostly of sentence reading. From this stage students gradually pass to the stage where independence in reading is attained. Throughout the 65 years that English has been taught in Puerto Rico, one of the most serious problems has been the inadequacy of reading materials. Books written for native speakers are designed for levels which rarely correspond to the level at which they are assigned in Puerto Rico. Vocabulary content is so far above the receptive vocabulary of the children that reading becomes a chore for teacher and student. If the books are used in higher grades the interest level does not correspond. Both simplified editions and books written for foreign students are scarce. Those that are available have not proved interesting to the students.

If to the shortage of reading materials we add the problem of crowded classrooms and lack of well-trained teachers, it is easy to see why it is necessary to revise the entire educational system to cope with these problems.

## What Is Being Done

We are attacking these problems in a variety of ways. In Spanish, a series of basic readers for elementary grades has been written. It follows the most modern principles of textbook writing. A modern grammar series accompanies the reading series. Some new supplementary readers are already available for the elementary grades.

In the high school, the reading course is being revised so that its content will be more varied instead of being limited to classical literature. Puerto Rican authors will be included in the course.

Besides the revision of reading courses there are many other activities in progress.

1. Reading clinics and pilot projects are being established.
2. A program for evaluation, translation, and production of textbooks has been organized.
3. A great effort to eliminate double enrollment and interlocking is being made.
4. The government television station offers educational programs at all school levels.
5. Reading tests have been standardized from the fourth grade up.
6. The College of Education of the University of Puerto Rico has revised its curriculum for the preparation of elementary grade teachers to include more content subjects as a means to improve teacher preparation.
7. A readability formula is being studied. This is probably a pioneer project which may serve as a model for other countries.
8. The program for adult education extended its services so that in 1960 it had reduced illiteracy to 12 per cent.[3]
9. In the teaching of English, Puerto Rico's principal contribution so far, has been the publication of six volumes of the *Fries American Series*.
10. A series of basic readers to be used with the grammar books has already been started. A readability formula was devised as the result of research done by a group under the direction of Dr. Ralph Robinett of the Department of Instruction. Each volume was provided with a glossary in Spanish.
11. To provide opportunities for practicing English outside of school, English Clubs have been organized over all the island and contests in public speaking, singing, folk dancing, and play acting are sponsored every year.

[3]Ismael R. Bou, *op. cit.*, p. 261.

938.

12. The in-service training program has been improved by the use of the exchange program and by the use of an apprentice system whereby American students specialized in the teaching of Spanish come to Puerto Rico to assist the zone supervisors, to serve as models for oral lessons, at the same time that they practice Spanish. Operation understanding is carried out by the exchange of American teachers who visit the island to study the cultural background of the children with whom they work in the States. Puerto Rican teachers are sent to the States to find out the problems Puerto Rican children meet there in order to modify or improve the teaching of English on the island.
13. An excellent course for adults is offered on television. This course is principally designed for adults who are planning to work in the States.
14. The scholarship program sends a number of teachers abroad every year and provides tuition and traveling expenses for those who study at the University of Puerto Rico.
15. Puerto Rico is a training camp for the Peace Corps. Spanish is taught to North Americans and English to South Americans who are going to teach or work in other countries.

## What Is Still Needed

We have discussed briefly the historical background of the educational system and what is being done to improve instruction. Now we can discuss what is still needed.

1. Puerto Rico needs more schools. The present large enrollment is due to lack of classrooms and teachers. In 1958-59 the enrollment was 44.3 per cent beyond capacity in the elementary grades and 19 per cent in the secondary schools. The average number of students per teacher was 42.9 in 1959.[4]
2. Reading materials are needed. We still need more books in Spanish. In 1959, 33,000 books were lacking for the elementary grades and 84,000 for the secondary level. According to a study made in 1959, in order to meet the demands for the next six years, $12,000,000 will be needed to supply books to the schools.[5]
3. We also need better books. Many of our Spanish texts are inadequate because they are translations; they are not interesting to Puerto Rican students and they do not develop reading or vocabulary skills. Good books are so scarce that in some schools content books are used as basic readers.
4. Guides for teachers have to be provided to insure more satisfactory teaching of reading.
5. Clearly defined reading goals for each grade are also needed.
6. Better use and distribution of available books is necessary to provide some reading instruction for all children.

## Reading Materials in English Are Also Needed

1. We need a series of basic readers designed to begin at the appropriate level in which reading instruction is started in Puerto Rico. In addition, the beginning texts should reflect the same patterns that the children have mastered orally. These readers must begin with familiar situations and gradually extend to subject matter of permanent value. Selections chosen should be varied, interesting, and should provide the cultural background that will add to the understanding of the people whose language is learned. The style should proceed from the colloquial to the literary as the student increases his command of the structures and vocabulary of the language. Coordinate, independent sentences should predominate. Expressions which deviate from general English should be avoided. Since reading in a foreign language presents such a heavy vocabulary load, care should be exercised to provide as much help as possible during the early stages.

[4] Ismael R. Bou, *op. cit.*, p. 362.

[5] Ismael R. Bou, *op. cit.*, p. 206.

939.

Too many new words and structures discourage even the most enthusiastic reader. Vocabulary difficulties for Spanish-speaking readers consist of Anglo-Saxon words, two-word verbs, and expressions which involve the use of prepositions. Easy words for Spanish speakers are cognate words and words of Latin and Greek origin. To lighten the load of the readers, grammatical irregularities must be explained as vocabulary items and a glossary in Spanish provided.

2. Besides the basic readers, we need a large variety of supplementary readers, written for foreign students.
3. Relocation of supplementary readers in use is necessary.
4. English teachers have to be stimulated to use the reading periods for effective development of reading skills.
5. Audio-visual aids for the teaching of English as a second language, such as films and tape recordings, are needed. Materials of these types might be very useful in other countries.
6. Schools need laboratories for the improvement of speech and intonation.

## Teacher Training Has to Be Improved

1. A language institute in Puerto Rico would be an excellent addition to the educational system for it would improve the quality of English instruction on the island.
2. Salaries have to be raised to keep good teachers in the profession. If we compare salaries, Mississippi, whose salaries are lowest in the United States, paid an average of $3,200 in 1959. In the same year, Puerto Rico paid its teachers an average of $2,016. A study made in 1959 showed that employees in industries earned 17 per cent more than those who worked for the government.[6]
3. Much research is needed in both languages, especially, research dealing with vocabulary problems and textbook construction.

Though Puerto Rico faces serious problems in its attempt to improve instruction, it is making a tremendous effort to eliminate illiteracy, improve materials, and provide a sound educational program for its growing population.

[6]Ismael R. Bou, *op. cit.*, pp. 354-55.

940.

299.

Vol.7,62



# 10. Ivan and Johnny—A Critical Review

ALBERT J. HARRIS

The book *What Ivan Knows That Johnny Doesn't* by Arther S. Trace, Jr., (6) could have been a major contribution to comparative education. Instead, it turns out to be so unreliable that even those of Trace's criticisms that may have a sound basis become suspect.

Dr. Trace's book attempts to compare American with Russian education in the fields of reading, literature, foreign languages, history, and geography.

The author states very clearly that his purpose is to show that instruction in these basic subjects in American schools is poor not only in comparison with Soviet educational practices, but also that it is poor by any standards. This review will attempt to appraise only those parts of the book that are concerned with the teaching of reading and literature.

He chooses to base his conclusions almost entirely on an examination of textbooks used in the two school systems. He states: "If a student's textbooks are excellent he may be able to get an excellent education indeed if he has good teachers and if he studies hard; but if his textbooks are poor, his education is bound to be correspondingly poor no matter how excellent his teacher may be or how hard he studies."

The comparison of textbooks is a potentially valid basis for comparing curriculums if—and if is a big word—the course of study is based mainly on study of the textbooks, and other materials and learning activities are of minor importance. It may well be that in the early grades of Russian schools the reading textbook is all that needs to be considered. This may be true in some American schools also. But in a very large number of American schools the basal reader is only part of a broad and rich reading program that includes planned emphasis on reading for information in a wide variety of sources, and a planned recreational reading program which is based on effective use of classroom and school library collections. Indeed, schools and teachers who are using a highly individualized approach in reading instruction usually make little or no use of basal readers.

It seems strange that Dr. Trace does not once mention the possibility of judging the worth of an educational program in terms of its outcomes. He seems, however, to be content to rely entirely on a comparison of instructional materials, apparently assuming that there must be a direct and simple relationship between stimulus and response. Would that it were so simple!

Dr. Trace also manages to ignore both the fact that children grow and develop and the fact that individual differences in learning ability are real and important. He does remark that Russian children are started on reading at the age of seven and are a year older than American children in each grade, but disregards this when he makes comparisons grade by grade. That there are marked differences in rate of mental growth and brightness is not mentioned at all, nor is there any recognition of the possibility that a reading diet that is stimulating and challenging to a bright child might give mental indigestion to a slower youngster.

Actually, Dr. Trace's main contention seems to be that the more one exposes a child to, the better the outcome must be. Thus, in comparing Russian and American basal readers, Dr. Trace considers the most salient fact to be the larger vocabulary of the Russian readers, to quote: "Whereas the fourth-grade *Rodnaya Rech* reader has a vocabulary approaching 10,000 words, most American fourth-grade readers have a vocabulary of well under 1,800 words" (6, p. 18). He states that American children acquire a knowledge of only about 1,000 words from third-grade readers, and asserts: "No students can acquire a vocabulary of more than 1,500 words from a fourth-grade reader that has a vocabulary of no more than 1,500 words."

Dr. Trace has greatly underestimated the vocabularies of American basal readers. According to a recent survey by Groff (4), the median third-grade basal reader vocabulary is 1,469 words. This is about 50 per cent higher than Trace's estimate; not one series has a vocabulary as small as his figure of 1,000 words. Fourth-grade vocabularies are similarly underestimated; the Scott, Foresman series, for example, lists a total of 2,742 words through the fourth

941.

grade, in comparison to Trace's estimate of 1,500 words.

Embedded in the comparison of vocabularies is the very different structure of the two languages. Russian is a highly inflected language, resembling Latin in this respect, in which a word root takes on many shades of meaning as one or another of many different endings are attached to it. An ordinary verb, for example, is likely to have over sixty different variants which indicate its mood and tense and the number and gender of its subject. A corresponding verb in English has only five or six variants. Whereas English uses a number of little words over and over as prepositions, articles and conjunctions, the Russian equivalents of many of these are provided by suffixes.

The vocabulary counts for American basal readers do not usually count variant or inflected forms. The Scott, Foresman fourth reader, for example, requires eleven lines of fine print to describe the kinds of variants that are not counted as separate words. If these variants were counted, the total vocabulary in this fourth reader would probably be between 3,000 and 4,000 words.

Dr. Trace does not indicate the source of his figures on the size of vocabulary in Russian readers. The round numbers that he uses—2,000 words for the first reader, 4,000 for the second grade reader, 7,000 or 8,000 for the third grade reader, 10,000 for the fourth grade reader—sound more like rough estimates than like totals based on an actual count. He does not indicate whether or not inflected and derived forms are counted separately; from the structure of the language, it seems likely that they are.

In all probability, Russian readers do use a somewhat larger vocabulary in each grade than American basal readers. However, if an accurate vocabulary comparison were to be made, the difference would certainly be far smaller than Dr. Trace wants us to believe.

Dr. Trace devotes very little space to methods of teaching reading. The Soviet system is described, in one paragraph, as a phonic system in which children start by learning in sequence all the letters of the Cyrillic alphabet and their sounds, and in a few weeks are reading sentences and paragraphs. For a more adequate account of how the Russian child learns to read one has to turn to Hildreth's recent article (5).

His explanation of American reading instruction, similarly brief, takes it for granted that the "whole-word" or "look and say" method is standard, and that this requires children to memorize separately the shape of every word form. He recognizes that there is some instruction in phonics. There is no acknowledgment, however, that a slow introduction of phonics can provide any independence in word attack, and the assumption is maintained that American children can recognize only the words they have been specifically taught. This unwarranted assumption has been thoroughly demolished in recent papers by Gates (2, 3).

It came as a shock to this reviewer when he finished Dr. Trace's book and suddenly realized that nowhere in the book was there a single statement to indicate that Trace has ever looked inside a work that explains how reading is supposed to be taught in American schools, either a textbook for college courses in reading instruction or a manual that accompanies a basal reader.

Dr. Trace goes into considerable detail to compare the contents of Russian readers with those of American readers and finds the content of the Russian books to be far superior. In making these comparisons he has relied mainly on the tables of contents of the various books, although he has evidently read some basal readers for the primary grades.

His big complaint is that good literature is prominent in the Russian readers and markedly absent in the American counterparts. He points out that selections by outstanding Russian authors such as Tolstoy and Pushkin occur as early as the first reader and make up a substantial part of the third and fourth grade readers.

His criticism of the literary content of American basal readers is severe. He states: "The selections in elementary school readers for the early grades deal chiefly with cardboard boys and girls who participate in trivial episodes involving mommies and daddies, baby sisters and visiting aunts, grandfathers who own farms, mailmen, corner cops and corner grocers, and other

assorted people in a hypothetical and sterilized community." He attributes this partly to excessive concern for vocabulary control, which he despises, and partly to "a theory of education which proposes that the schools must teach students to adapt themselves to their immediate community environment."

Implicit in his comparisons are certain assumptions. One is that anything written in a limited vocabulary must necessarily be inferior. Another is that anything written by an author of established reputation must be meritorious and anything written by an author unknown to Dr. Trace is inferior. No consideration is given to the relation of style or content to the interests of growing children, to their general language development and maturity, or to their ability to understand and comprehend.

Dr. Trace seems to take it for granted that exposure to adult literature at an early age is necessarily effective in producing both understanding of literature and a love for it. Experience in this country suggests otherwise. We have whole generations of adults who have never read any Tennyson after exposure to *Idylls of the King,* any George Eliot after *Silas Marner,* any Scott after *Ivanhoe,* any Shakespeare after *Macbeth.* How and when and to whom one teaches such materials is important, and early introduction is not necessarily wisest.

Nevertheless, one cannot dismiss Dr. Trace's criticisms of the content of basal readers as entirely unfounded. He is not the first person to criticize reader content, and certainly will not be the last. Unquestionably the content of many readers can be improved and should be.

In his final chapter, Dr. Trace makes some recommendations for improving reading instruction. He sees possibilities of enriching and improving the reading program only through upgrading the basal reader. He wants the vocabulary of basal readers to be greatly increased, the sheer amount of the content enlarged, and the literary quality greatly improved. This has, at least, the virtue of consistency with his earlier statements. Like them, these recommendations assume that input determines outcome and that the only materials that count in the reading program are the basal readers.

In this review, Dr. Trace has been shown to have confused input with outcomes, to have ignored the facts of child development and individual differences, to have distorted and misrepresented facts, and to have learned very little about the methodology of reading instruction. It is depressing that his book has been taken seriously by some reviewers. Discriminating readers can hardly fail to notice its flaws, and are unlikely to accept its conclusions.

## REFERENCES

1. Brickman, William, Review of *What Ivan Knows That Johnny Doesn't, Saturday Review,* November 18, 1961, pp. 63-64.
2. Gates, Arthur J., Review of Tomorrow's Illiterates by Charles C. Walcutt and *What Ivan Knows That Johnny Doesn't* by Arther S. Trace, Jr. New York: Bureau of Publications, Teachers College, Columbia University, 1962, 23 pp.
3. Gates, Arthur I., "Vocabulary Control in Basal Reader Material," *The Reading Teacher,* Vol. 15, No. 2 (November, 1961), pp. 81-85.
4. Groff, Patrick J., "The Problem of Vocabulary Load in Individualized Reading," *The Reading Teacher,* Vol. 14, No. 3 (January, 1961), pp. 188-90, 194.
5. Hildreth, Gertrude, "How Russian Children Learn to Read," *The Reading Teacher,* Vol. 13, No. 2 (December, 1959), pp. 134-144.
6. Trace, Arther S., Jr. *What Ivan Knows That Johnny Doesn't:* A comparison of Soviet and American School Programs, New York: Random House, 1961, p. 213.

943.

300.

Vol. 3, 63

# 3. Reading Instruction in Sweden

204. EVE MALMQUIST



The view that the child's development in reading should not be regarded as an isolated technical educational problem, but as a phase, an aspect of the child's total development, and as such, intimately integrated with it, is becoming more and more widely accepted by Swedish reading specialists. It is considered to be an interdynamic interaction between the child's general intellectual, emotional, and social development and the development of his reading ability.

Failure to learn to read may affect the development of the child's entire personality negatively. Reading is considered extremely important by Swedish school authorities and teachers for personality development and mental health of the child.

During his first days in school, the child should not have cause for anxiety and ill-feeling owing to tasks which are above his ability. On the contrary, the child ought to be given confidence that he has resources to benefit from what the school can offer. Every child ought to be given the opportunity to feel the great satisfaction and motivation for continued work which is connected with success. And that means that the teacher has to fulfill here in the beginning situation as well as later on in school life her hard but essential task to establish proper relationships between capacities and tasks.

## A General Preparatory Period Before Formal Instruction

For this reason in Sweden we start the schooling very cautiously and try to make the child's transfer of activities from home to school easy and endurable. The teacher is doing her best to create in the children positive attitudes toward school and the working life there. During the first two or three weeks the child has to be at school only two hours a day. Some decades ago both parents and teachers had the notion that all children should be taught reading as soon as they began first grade. Regular reading exercises were therefore started the very first week at school, often of a very technical nature. We do not do that now. Many children need preparatory teaching of various kinds before the real reading instruction is started. Teachers at the primary stage spend much time during the first weeks of school doing exercises and playing games to develop the children's speaking and listening ability and their visual and auditory perception. The teachers also try to enrich the children's vocabulary and introduce general concepts and expressions that children will need in order to understand more formal reading instruction later on.

## A Diagnostic Approach

During this preparatory period the children will be more and more accustomed to the classroom situation and the teacher has opportunities to observe children in order to get an idea of their maturity and capacity in different aspects of their development.

A knowledge of resources of an individual pupil in different areas is one of the fundamentals of planning the teaching in an appropriate and effective manner, and the primary teacher of today in Sweden is well aware of this important aspect.

If some children, according to the results of school readiness tests, observations and measurements made by school psychologists, doctors, and teachers are considered immature, it is possible for them to postpone schooling until they are eight years of age. But such pupils who are not quite ready for ordinary schools are put in special school-maturity classes with a very small number of pupils (not more than 15 but often lower). Here the teacher is supposed to be able to better stimulate the child's development towards reading readiness.

One of the main regulations of the Education Act (1962) is that the personal resources of the individual child should not only to be respected but it should be the starting point for the planning of education and teaching. The school has to stimulate any child's personal growth towards a free self-active, self-confident, and harmonious human being. The school shall give individual education.[1]

In a school where the greatest possible consideration has to be given to the interests and capacities of the individual pupil the claims of the performances within a class must vary. The use of whole class teaching as the only procedure in first grade in the elementary school with the same learning requirements for all children as to speed, the difficulty of the material and the lastingness of the practice periods is considered to interfere with a sound reading development and it contributes to the causes of reading disabilities.[2]

The children of the same chronological age differ widely in capacity to learn, intelligence, background experiences, and all kinds of personality traits.

A great range of ability of other variables at school entrance was also noted in one of my own experimental studies, recently made in Sweden.[3]

There were several children in the population studied (386 children) who had very little knowledge of letters at that time, often knowing only the letters in their own names. Two to three per cent of the children knew all the small letters. Eighty per cent of the children could not read a single word in an easy prose test, standardized for the end of the spring term and one to two per cent of them reached a standard equivalent of beginning third grade reading.

The need of organizing instruction to provide in an adequate way for those differences is therefore evident and urgent.

In order to be able to choose good procedures for teaching, a teacher must have a clear conception of the objectives of her reading instruction. Only if the teacher has realized the broad purposes of the reading program as a whole, can she successfully develop more detailed goals and make plans for separate lessons

---

[1] *Läroplan för grundskolan*, Stockholm, Sweden: Kungl. Skolöverstyrelsen, 1962, p. 13.

[2] As to definitions of reading disabilities see Eve Malmquist, *Factors Related to Reading Disabilities in the First Grade of the Elementary School*. Uppsala, Sweden: Almquist & Wiksell, 1958, pp. 44-47.

[3] Eve Malmquist, *Barnens kunskaper och färdigheter vid skilgangens början* (*Children's knowledges and abilities at the entrance of school*). Karlshamn, Sweden: Kungl. Skolöverstyrelsen, 1961.

944.

to achieve those sub-goals that are necessary to meet the needs of individual children. An awareness and knowledge of the goals is considered a prerequisite for an appropriate selection of methodological and organizational procedures as well as reading materials to fit the program.

It is generally recognized that the first goal of reading instruction is to develop the mechanics of reading-skill in synthesizing the words by sounding and in identifying words by sight and through the use of context, structural analysis, skill of oral reading with good expression, pitch and enunciation, etc.

## Meaning Is Stressed

But this is not enough. From the very beginning of reading instruction, various comprehension aspects must be stressed by the teacher. If reading is to be developed as a tool of learning and if we want to have the children to like reading, which is the most important goal, the children must feel the meaning of what is taught from the very beginning. Mere endless repetition of rather meaningless elements of words, which was formerly very common in Swedish reading instruction, is not approved by Swedish teachers.

Meaningful and interesting material is therefore used even in more technical exercises at the beginning stages in the first grade.

Adapting reading instruction to the wide range of differences between and within children normally found in any school class is a difficult but an essential task for the teacher. The teachers of the elementary grades have been given some help by administrators who lowered the number of pupils per class in grades 1-3 to a maximum of 25 (formerly 30).

Flexible grouping is used to adapt to different teaching aims. The grouping of children for developing certain levels of word recognition may not be appropriate for the teaching of sounding, etc.

In Sweden the teaching of primary reading is still to a great extent based on synthetic methods. The particular letters —the symbols for the sounds—are generally taught in connection with the exploring of specially composed pictures in the textbooks. The pictures usually represent people or animals in situations which are familiar to children. The children have to tell a little story about what they can observe in a picture. Those words which are mentioned by the children will serve as the starting point for sound analysis.

The first attack is consequently made out of the child's understandable words or sentences. After that the various elements of words—letters and syllables—are analyzed. After having learned the forms and sounds of five or six letters pupils have to try to combine the sounds to form words. From the very beginning the teachers direct attention to the meaning of what is read.

Pupils get a good technique by the phonic method which will enable them to attack successfully unknown words. And this is not the case when the word method —in Sweden often called the look-and-guess-method—is used as a basic method. It is easy to teach primary reading by this method, and the method is economical and logical, according to Swedish teachers.

## Phonics and Analytic Methods Compared in a Research Study

The advantages of the phonic method in teaching Swedish first graders to read has been demonstrated by a Swedish research worker Jon Naeslund.[4]

According to Naeslund's results from a co-twin control experiment the synthetic method is more efficient than the analytic method as regards reading a continuous and meaningful text. He has also found that a synthetic method of teaching reading is superior to an analytic method when it is a question of teaching children of lower ability, and that a synthetic method yields better results in word-recognition. Naeslund's investigation did not confirm the hypothesis that pupils taught by the synthetic method are better at spelling nor is their tendency to guess when reading less pronounced than that of pupils taught by analytic methods. As regards the capacity to arouse in the pupils an interest in reading, Naeslund reports differences, though these are not significant, in favor of the analytic method.

[4]Jon Naeslund, *Methods in Teaching Primary Reading* (in Swedish with a summary in English). Uppsala, Sweden: Almqvist and Wiksell, 1956.

945.

Many Swedish teachers and psychologists have emphasized, however, that the phonic method has also certain limitations. When using this method the teacher starts with elements of words—sounds and letters. These elements are very abstract for the child. They might therefore very easily be uninteresting and hard to learn.

But nowadays most Swedish teachers use several methods while teaching reading. Because of wide developmental ages in school classes, it is held that every program of teaching reading should contain both synthetical and analytical methods. Otherwise there could be no provision for the aim that every individual child should be given just that special assistance that he needs. The exclusive use of only one method is disapproved.

Still the phonic method is nevertheless the basic teaching procedure for the majority of the teachers. The question to be answered is not "if" but rather "when and to what extent?"

In the first reading exercises of modern Swedish readers children come upon words with only very simple and clear structure. In the beginning the words consist of two or three letters only. It is considered favorable to start with concrete nouns. Other parts of speech are then successively introduced, with adjectives and verbs coming first and what is still more important, words which the children are expected to know very well and which they use daily when speaking are stressed. In modern readers for the primary stage the vocabulary is very carefully controlled. All new words which are introduced on a certain page in a book are noted in a special way. In an ordinary reader for the first grade, "Jag kan läsa," there are introduced in all 846 different words in a running text of 13,639 words.[5]

## Various Supplementary Reading Materials Used

In addition to basic readers all kinds of supplementary reading materials are used: letter cards, word cards, sentence cards, workbooks, supplementary readers, with or without work exercises. The children are systematically trained to learn to work more and more independently with reading material of this kind. Only in this way is the teacher getting opportunities to control directly and continuously the progress of each child's reading. The independent silent reading in the elementary grades is aimed as a preparation for the continued work in silent reading in the content fields in the middle and upper grades. The working procedures must vary from whole-class reading and reading in flexible groups, to individualized reading. Reading is taught through all the grades in close relation to the other aspects of communication.

At the end of the second grade the pupils have in general "learned to read" and in the third grade they start "to read to learn." Teachers in Sweden are often heard saying so. Naturally the development of a reading ability of a work-study type—functional reading—does not come about between the second and third grades, but under all circumstances reading as an instrument for learning must be taught in the third grade. No one can succeed in school without learning to read for information. In the middle and upper grades various aspects of functional reading are stressed and so are those of recreational reading.

## A Broad and Comprehensive Reading Program

A sound reading program ought to be broad and comprehensive. Otherwise the teaching cannot provide for individual differences and needs. According to directions of the Royal Board of Education the pupils must be given different kinds of reading instruction at all maturity levels: systematic teaching of basic reading skills; recreational reading; oral reading of various kinds; reading of work-study-type in arithmetic, science, social studies and history.

Every subject has its special reading difficulties according to my opinion. There is, therefore, a need for systematic instruction of study techniques in all subjects. In Sweden, programs of teacher preparation have just recently started to emphasize reading instruction of this kind.

[5]Eve Malmquist, *Jag kan läsa* I-II (I can read) Stockholm, Sweden: Natur och Kultur, 1958.



So many teachers are still unable to make a successful attack on this problem.

From third grade on, pupils are generally given adequate practice in evaluation and interpretation of statements made by an author of a book or a journal. They are encouraged to read and think critically, which is considered very important for a citizen in a democracy. Systematic instruction in using books and libraries efficiently is also commonly given in middle and upper grades with seemingly good results.

Speed in reading seems to be neglected in Swedish schools, however. Often investigations have found average Swedish pupils even in upper grades to change speed when reading material of various difficulty levels and for different purposes.

946.

301.

Vol. 10, 65



## 5. Reading Research in Scandinavia

EVE MALMQUIST
National School for Educational Research
Linköping, Sweden

IN THIS presentation I would like to limit myself to only a few of the research studies, either recently carried out, or still on-going, within the field of reading in Scandinavia. The common denominator of the studies which I have selected is that they all treat problems connected with the teaching of reading at the primary level, that is grades one through three with children 7 to 10 years of age.

I have chosen, first, a study made in Denmark on the effectiveness of part-time remedial reading instruction; second, a Norwegian study with the primary emphasis on reading-readiness problems; and third, some studies from Sweden on factors related to reading disabilities and on the effects of *various means used to stimulate* the development of reading ability.

### The Efficacy of Remedial Reading Instruction—A Danish Study

Carl Aage Larsen of Denmark set out to measure the efficacy of remedial reading instruction given to children in their second and third years of school, when the children would be, respectively, about eight and nine years old—inasmuch as, in Denmark, school starts at the age of seven. Since 1935 systematic remedial reading instruction of various kinds has been available in Denmark. According to Larsen, at present, about 12-15 per cent of urban children and about 6 per cent of rural children are given part-time remedial instruction in small groups.

In order to determine the effectiveness of this type of remedial instruction given to the retarded readers, two experimental and two control groups were established. The experimental groups comprised children in the 2nd and 3rd grades, totalling 80 and 70 pupils each. The control groups consisted of, respectively 80 and 53 retarded readers, from the same classes and of the same ages and of the same stages of development as the children in the experimental groups. The children's IQ's in all four groups were normal or above normal with no significant mean differences between the experimental and the control groups.

The two experimental groups were given four hours of supplementary reading instruction per week, in groups of four each, whereas the control groups did not receive any supplementary reading instruction. The study revealed that part-time instruction in the second grade reduced the need for reading classes the following year, but did not succeed in bringing the pupils up to the standard required for promotion.

However, information from the teachers of the experimental groups indicated that the additional remedial teaching had had favorable effects upon the pupils' daily school-work in Danish, and also upon their over-all behavior and adjustment.

A study of the findings on the third grade pupils showed that the most distinct difference, in favor of the experimental group, was found in spelling. In oral reading, however, the progress was about the same for both groups. The results of the study indicated that, in spite of special remedial instruction, the reading development of the reading-retarded children in the second grade could not be forced, which Larsen points out, is in agreement with observations made by, for instance, Albert Harris, David Schonfield, and Fred Schonell. Larsen is inclined to explain the more favorable results of the remedial instruction in the third grade as due to the fact that the children are older at this point and that therefore more children have reached the stage in their development in which they are able to take advantage of such remedial help.

This point of view leads him to imply the need for a re-evaluation of the aims and methods of teaching in the primary grades.

### Studies of Reading-Readiness Problems in Norway

The doctoral thesis of Hans Jorgen Gjessing in Norway is based upon studies on various aspects of children's reading-readiness at the beginning of the first grade. Above all, he wanted to assess the predictive value of certain school and reading-readiness tests.

947.

The population studied consisted of 304 first-grade children from elementary schools in a Norwegian city, Drammen. They ranged chronologically from 6 years and 2 months to 7 years and 6 months. The mental age, as measured by Sandven's school readiness test, showed a far greater range, however—from 4 years and 3 months to 10 years and 3 months. Gjessing's discovery of a great range, as to mental age, in the classes of school beginners is not surprising to teachers who have long found great differences as to intellectual potentiality between children at that level. It is of great importance, however, that by means of scientific investigations of the kind Gjessing carried out in Norway it is possible to clarify *how big* these differences really may be, even from the beginning of the first grade. This range, as to mental age, noted by Gjessing in Norway closely parallels findings I made on a similar population at the end of the first grade in Sweden. There the extreme values of IQ were, on the one hand, 4 years and 11 months and on the other hand, 11 years and 8 months, a range of 6 years and 9 months, though the chronological age range was only a few months, the mean being 7 years and 9 months.

Initially, Gjessing administered a great number of tests to measure the capacities of the school beginners. As criterion of their predictive accuracy, Gjessing used some silent reading tests which were applied at the end of the first and second school years, respectively.

In order to reduce the size of the battery of readiness tests, Gjessing used multiple correlation analysis techniques, according to Wherry-Doolittle's method, and through the 5 tests thereby selected, reached a coefficient of prediction of $R = 0.57$, with the results of the reading tests given at the end of the first grade as criterion, and of $R = 0.48$, with the results of the reading tests at the end of the second grade as criterion.

The predictive value of the readiness test alone was, thus, rather low.

With a critical cut-off point somewhere between the standard scores 2 and 3 on a 9-point scale, the readiness tests predicted an unsatisfactory reading development for only 40 per cent of those children who, as it turned out, at the end of the first year really were found to belong to the group of children with the most severe reading disabilities.

The other 60 per cent within this group had been rated too optimistically, on the basis of these reading-readiness tests.

Gjessing found that the accuracy of prediction was considerably increased when, in addition to the quantitative variables, he took into consideration data such as ratings of certain personality traits, speech, and language capacities of the child when starting school.

Gjessing stresses that the results of his study, on the whole, show that factors other than those he had been able to control by the readiness tests used, also make important contributions to the development of the child's reading ability.

The findings from the studies made by both Larsen and Gjessing point in the same direction as my own research work in Sweden, by implying that the teacher in order to be able to prevent reading disabilities from arising must be able to use a diagnostic approach from the very beginning of the child's schooling, and that methods and approaches must be adjusted to meet the differences between children. We assume that by means of effective diagnostic instruments and a variety of methods which can be adjusted to the needs and capacities of each child, reading disability cases can be markedly reduced. However, research will need to refine our reading-readiness tests, contribute to the creation of more effective predictive tests, and throw light on how best to train teachers in their use.

## Factors Related to Reading Disabilities

We will see many parallels between the two studies we have reported on from Norway and Denmark and some done in my country. In a brief form I'd like to summarize some of the results which I consider the most important gained by these investigations which were based on a representative population of Swedish first-grade school children.

A method of analysis of variance of higher order was used, in addition to more conventional methods of investigation, so that the variables which were selected

could be tested, not only in isolation, but also in conjunction with other variables. We took into account factors such as preschool development (birth, health, speech development, etc.) home background, social and economic status, the educational level of the parents, and other home conditions. Moreover, the teachers evaluated a number of personality factors for each child. Tests of vision, hearing, reading ability, visual perception, intelligence, reading ability, etc. were administered. In addition, certain teacher and school variables were included in the studies.

From more than 40 variables investigated, the following factors were found to be the most intimately related to reading disabilities in the first grade and further, to most clearly differentiate the group of poor readers from the group of good readers:

1. Intelligence, ability to concentrate, persistence, self-confidence and emotional stability—nervousness of the child.
2. Spelling ability according to certain spelling tests, and also visual perception as measured by five visual perception tests.
3. Social status of the parents, educational level of the parents and the reading interest in the home.
4. Teaching experience of the child's teacher, as measured by the number of years of service in the profession.

With the use of the case-analysis approach, it was found that children with "special reading disabilities" (IQ above 90, according to Terman-Merrill) deviated negatively to a marked degree from the mean for the total population investigated, with regard to several variables other than reading ability. Judging from my results, reading disabilities at the first-grade level are never isolated defects. In all the cases investigated they were found to exist together with deficiencies, disturbances, or unfavorable conditions in several other areas.

Unlike former investigators, I found in analyzing errors in oral reading, that there were no types of errors uniquely characteristic of the group of poor readers. All of the recorded types of errors in oral reading also occured in the group of good readers, but with a lower frequency. The same observation applied to the different kinds of spelling errors, with one exception. It should be mentioned that the omission of vowels, in the spelling tests used, was found to occur very rarely in the case of good readers.

## Can the Occurrence of Reading Disabilities Be Prevented? Some Longitudinal Studies in Sweden

Now I would like to bring to your attention some of the results of reading research carried out, and on its way, at the National School for Educational Research in Linköping, the only research school of its kind in Sweden. In 1958 we started there a three-year longitudinal study on special reading disabilities, and on the development of reading and writing abilities in children at the primary level, grades 1 to 3. These investigations included studies of the attainments and proficiencies in reading, writing, and arithmetic in children when entering school.

The theory behind the design of the studies was the following: The occurrence of special reading disabilities is dependent upon a whole complex of factors which are intimately interrelated, and are frequently difficult to separate one from the other. In the majority of cases of special reading disabilities there are good prospects of exerting an influence in a positive direction; and at times this may be done to a very considerable extent.

In our special remedial reading classes and in our reading clinics many teachers are performing excellent work, entailing considerable self-sacrifice, in attempting to help children with reading disabilities and personality maladjustments which often are associated with these difficulties. Ideally, it would, naturally, be preferable to forestall and to prevent, the occurrence of the reading disabilities, in the first instance. One of the conditions for an effective program to prevent reading disabilities, would be the ability to diagnose, satisfactorily, even before the child begins school, his qualifications for the learning of reading.

The following main hypothesis was advanced for our investigations: It is pos-

949

sible to decrease, markedly, the frequency of reading disability cases by a careful diagnosis of the child's reading-readiness and general school readiness; and then, on the basis of these diagnostic findings, establish a teaching situation synthesizing on-going diagnosis — treatment — and teaching for those children who could be expected to experience special reading and writing difficulties.

In order to test this hypothesis experimentally we administered a pilot study, starting in 1958, with a pupil population of first graders, 4 classes from the research school, 16 classes from schools in the province area of the research school—in all 386 children.

The children in the experimental group, as well as those in the control group, were given a battery of school readiness tests and reading-readiness tests, as well as tests of their ability and knowledge in reading, writing, and arithmetic, before entering school at the age of 7. From the results of these diagnostic instruments we anticipated that certain children would get reading disabilities if no special auxiliary measures were taken. These children were then given special help by a reading clinic teacher in cooperation with the teacher in the classroom, if they were part of the experimental group, but not if they belonged to the control group. This pilot study was continued until the children had completed the third grade in 1961. From the results of the tests given at the end of the first, second and third grades, we found that the experimental group had reached significantly better results on reading tests, as compared to the control group. The number of cases of reading disabilities, as to the operational definitions used, was much lower in the experimental group than in the control group. In order to verify the results we reached in this pilot study, we started in 1961 a new study of the same character, with the same design but on a larger scale. In this study, children from 12 different cities participated; in all, around 1,450 pupils from 72 classes. This study was completed in 1964 when the children were in the third grade. All the data are not sufficiently analyzed statistically at this moment, but out of the preliminary results available, I am able to draw the conclusion that auxiliary measures like those given to certain children within the study will make significant contributions toward diminishing the number of reading disability cases, and also improving the reading ability in the classes, as a whole, as measured by the reading tests used. But I will also tell you that the optimistic claims that we would be able to completely eliminate remedial cases within the experimental groups were not fulfilled.

## The Effect of Using Typewriters as Aids in Teaching Reading and Writing

In another recently completed investigation, we studied the effect of using typewriters as aids in teaching reading and writing.

The principal hypotheses advanced in this inquiry were as follows: as compared with pupils who used only pens and ordinary handwriting when learning to write, those pupils who were allowed to use typewriters in addition when learning how to write in the second and third grades would make:

1. greater progress in spelling ability,
2. greater progress in reading ability,
3. equally good progress in ordinary handwriting, in respect to quality and
4. in respect to speed, but
5. greater progress in accuracy in writing.

Four classes, and in all, 91 children took part in the investigation. They were divided into an experimental and a control group; and to the extent possible, these groups were matched according to a series of important variables.

Judging from the test results, the use of typewriters on these particular grade levels, appears to have produced certain positive influences on the development of spelling, as had been hypothesized. However, the mean differences between the two groups were not significant.

The development of reading ability, to judge by the experimental results, was not influenced by the use of typewriters in connection with the elementary teaching of writing.

Handwriting, as evaluated by tests during the final phase of the two year experi-

950.

ment, showed no deterioration within the group that had engaged in typewriting during part of the time assigned to writing.

As regards accuracy in writing, according to the test results, the pupils in the experimental group improved to a greater extent than did the pupils in the control group, with a significance at the 5 per cent level.

In their reports on their experiences in connection with the experiment, all the teachers expressed a positive attitude to the use of typewriters as an aid in teaching at this elementary level. The overwhelming majority of the pupils who took part in the experiment showed great interest in and adopted a distinctly positive attitude to writing on typewriters at school. This interest and this positive attitude did not, as one might have feared, abate during the two years of the duration of the experiment, but still pertained a year after the conclusion of the experiment.

In 1962 we started a new experiment of the same kind, but now on the first-grade level at age 7. This three-year longitudinal study is still in progress and will be finished in 1965. According to the measurements already made, an even greater benefit is being derived by the use of typewriters at the introductory level of the teaching of reading and writing than was the case in the second and third grades of the study we have mentioned, the report of which has already been published.

The use of the typewriter within a remedial reading situation has appeared to be a valuable supplementary aid to the other instruments and methods used, as claimed subjectively by the teachers. However, we do not have, as yet, a carefully controlled scientific verification of the usefulness of this approach in a remedial reading setting.

## The Effects of Postponing the Change-Over from Manuscript Writing to Cursive Style Writing from the First Grade to the Third Grade

I shall conclude this presentation with a short summary of a three-year longitudinal study carried on at the National School for Educational Research on the transition from manuscript writing to cursive writing at the elementary level. This exploration was undertaken during the school years 1959 to 1962, the results having been published at the end of 1964. Its primary purpose was to determine the effects of postponing the change-over from manuscript writing to cursive writing from the first grade until the spring term of the third grade.

The control group was introduced to cursive writing in the second term of the first grade, at age 7½, while the experimental group continued all its writing and reading activities in manuscript writing until the second semester of the third grade.

It was noted that the time needed to learn cursive writing was markedly reduced when the learning occurred when the children were older. Further, the centering of training in writing on a single script had, according to our results, a manifestly favorable effect on the development of both reading and writing abilities.

In both grades 2 and 3 the pupils in the experimental group revealed a greater degree of accuracy in oral reading than did the children in the control group. Further, they attained a greater speed of oral reading, but the mean differences were not significant. The experimental group achieved significantly higher mean scores as to comprehension in silent reading. In addition, the children in the experimental group acquired a clearer and more legible handwriting, and greater speed, when manuscript writing was used.

In all the spelling tests administered, the pupils in the experimental group obtained, on an average, significantly better results than did the pupils of the control group.

As for cursive writing, it was found that the children in the experimental group acquired, by the end of the third year, as good a quality of writing as that achieved by those who had been introduced to cursive writing in the first grade.

In the light of the results of our investigation, considerably less support is given to the development of reading and spelling by the introduction of cursive writing in the first grade. The learning of both manuscript and cursive writing appears to be enhanced by postponing the introduction of cursive writing until the second half of the third school year. At that time the children have, as a rule, acquired a fair degree of stability and accuracy; and, furthermore, have become more mature from a neuromuscular point of view than was the case in the first year of school at age 7.



And, according to the principles used at this research school, we are now testing our results from this pilot study in another longitudinal study on a large scale. In 1964 we started a three-year longitudinal study in 10 different cities throughout Sweden, a study comprising 52 classes and about 1200 pupils. The results from this follow-up investigation will be available in 1967.

### REFERENCES:


1. Gjessing, Hans Jorgen. "A Study of Reading-Readiness at the Beginning of Schooling," (In Norwegian). *Afhandlinger fra Universitetets Pedagogiske Forskningsinstitutt,* Nr 12, Oslo 1958.
2. Larsen, Carl Aage. "On the Teaching of Children with Reading Difficulties in the First Years of School," (In Danish with a Summary in English). *Dansk Paedagogisk Tidskrift,* pp. 193-254, Copenhagen, 1960.
3. Malmquist, Eve. "Factors Related to Reading Disabilities in the First Grade of the Elementary School," *Acta Universitatis Stockholmiensis, Stockholm. Studies in Educational Psychology 2,* Stockholm: 1958.
4. Malmquist, Eve. "Studies of the Children's Attainments and Proficiency in Reading, Writing, Arithmetic at the Beginning of Their Schooling in the First Grade of the Elementary School," Research Reports from the National School for Research in Linköping, Sweden No. I (In Swedish with a Summary in English), The Royal Board of Education in Stockholm, 1961.
5. Malmquist, Eve. "Typewriting as an Aid in Teaching Reading and Writing at the Elementary Level." Research Reports from the National School for Educational Research in Linköping, Sweden, No. II (In Swedish with a Summary in English), The Royal Board of Education in Stockholm, 1962.
6. Malmquist, Eve. "The Effect of Postponing the Transition from Manuscript Writing to Ordinary Cursive Style Writing from the First Year Course to the Spring Term of the Third Year Course," Research Reports from the National School for Educational Research in Linköping, Sweden, No. III (In Swedish with a Summary in English), The Royal Board of Education in Stockholm, 1964.


951.

302.



## 4. The Reading Program in Japan

TOSHIKO MISHIMA

THE TITLE of my paper is rather vague and, therefore, I would like to limit my topic to (1) the general trend in the viewpoint about, and the methodology of reading instruction in Japanese schools, and (2) the characteristic features of the Japanese writing system and its teaching on an elementary level.

It was not until the end of the 19th century that the movement toward the unification of written and spoken languages in Japan gained considerable ground. By 1920, some conservative newspapers finally gave in to the new way of writing which more closely resembled the spoken form. Ideas about reading instruction, however, still continued to be classically oriented for some time: that is, reading materials were chosen from the classics. Reading aloud and memorizing sentences often without knowing the meaning occupied a great part of a reading course. This method was used as a means to correct the students' pronunciation without recognizing that pronunciation mistakes by the students were likely to be due to his or her failure to understand the writing system itself. Nevertheless, an increasing number of people began to view the written forms as secondary to speech forms as the literary forms gradually diminished from Japanese writings. Accordingly, the reading instruction has been based on only those materials that students have already learned in their speech activities. More important, however, is the change that took place regarding the role of reading instruction in the school curriculum. Unlike the old practice where "reading" constituted one independent subject along with such others as "composition," "handwriting," and the like, the new theory recognizes "reading" as an integral part of a language education as a whole. This is not to say, of course, that reading instruction follows no distinctive program of its own. It does. Rather, the change is in the recognition of the importance of developing the students' language ability in all the skills, and in the effort to develop the students' ability in a real language situation: i.e., by building a real language situation in a classroom. In reading instruction itself, the method on the introductory level shifted from "letter-character method" and "word method" to "sentence method." This is again the result of a new outlook: i.e., viewing the small linguistic units such as words, phrases, and as functional units in the whole language system. From the elementary level up to the more advanced level, teachers' efforts are directed toward developing the students' ability to understand, interpret, and appreciate the texts spontaneously by themselves. In order to achieve this end, a teacher tries to reduce the explanation of the text to a minimum and he assists the students to find an answer through the use of a dictionary and through their own direct experience with the text.

Going from the general to the more specific, I would like to explain the Japanese writing system very briefly. The

952.

Japanese writing system makes use of three different sets of symbols. One of these consists of Chinese characters which is essentially logographic, and the other two are paralleling syllabaries which are derived from Chinese characters. The coexistence of the two syllabaries is due to the historical development of the Japanese writing system and one of them, called "katakana," has been rapidly replaced by "hiragana." "Katakana" is now used mostly for foreign loan words and telegram sentences. "Hiragana" was primarily used for function words such as particles, auxiliaries, and affixes. In other words, it was used where the logographic Chinese characters cannot be used. However, "hiragana" has been replacing difficult Chinese characters more and more. Each syllabary consists of forty-eight letters, each letter representing one syllable. Japanese syllables generally consist of a single vowel or a consonant plus a vowel. Five letters represent vowels and the rest represent a combination of voiceless consonants and vowels. Voiced consonant and vowel combinations (*k, s, t, h*+) and "p" sound, plus vowels, are indicated by diacritic marks. The letters have one to one correspondence with the sound, and the exceptional cases are very few.

The adoption of Chinese characters has produced a great many problems in our writing system since Chinese and Japanese are very different languages. The Chinese characters have acquired characteristic features of the Japanese language leading only to more complexity. One of these features is a development of different ways of pronunciation attached to each character. In order to avoid confusion, the Chinese characters are taught with one pronunciation for each. Other pronunciations are presented when the students have become familiar with the character and the first pronunciation.

Another characteristic of Japanese-Chinese characters is the loss of tone which Chinese characters originally carried. Because of the small number of consonant-vowel combinations in Japanese as compared to that of Chinese, there evolved a tremendous number of homophonous words. From the learning point of view, this means that the characters must be learned one by one. With only these few examples, the task of learning Chinese characters may appear to be formidable. Nevertheless, the teach of Chinese character-reading has been successful, as well as the teaching of the two syllabaries.

It must also be mentioned here that efforts have been made for nearly ninety years to renovate our writing system so that the burden of learning the writing system can be reduced. The most recent change, in 1946, was limiting the number of Chinese characters to 1,850, for practical use and, in 1951, limiting the number of characters to be taught in primary schools to 881. In addition, the shapes of some characters have been simplified. The use of syllabaries has also been changed in accordance with present-day pronunciation. These changes are the result of a long-time discussion by a special committee whose members represent various professional fields. These opinions are still considered very controversial.

Finally, let me briefly fit these sets of writing symbols into the picture of actual curriculum in schools. "Hiragana" is introduced first, and both "katakana" and Chinese characters are given to students a little later; however, all are introduced on the first grade level. The Japanese schools operate on a three semester system, the first semester starting in April. By the end of the second semester, "hiragana" is almost completely mastered. "Katakana" is mastered within the second year. The Ministry of Education sets a general program for the specific Chinese characters to be taught on each grade level. They are: in the first grade, 46; second grade, 105; third grade, 187; fifth grade, 194; and sixth grade, 144. According to a recent test, the students' actual mastery of Chinese characters by the end of the sixth grade averages 825 out of the 881 characters.

953.

303.

## 2. Developing Reading and Related Skills in the U.S.A. and the U.K.

190.

JOYCE M. MORRIS
United Kingdom Reading Association



IN THE U.S.A. and the U.K., all concerned with the educational welfare of children have the same fundamental task of ensuring that they learn to speak, read, and write English as effectively as possible. This unity creates a special bond between them, and a platform both for the discussion of common problems and the exchange of ideas.

Let us start by considering five of the problems we share.

### Common Problems

1. *Irregularity of English spelling*

Over the years, diacritical marks, colored letters, and so on have been used in British and American basal readers to ease the difficulties which the irregularity of English spelling presents to beginners. A more radical solution in the form of new alphabets has also been tried. At present, the one receiving most attention is Pitman's initial teaching alphabet. Experiments with it began in the U.K. in 1961, and it is estimated that by the end of this year children in about 15 per cent of the schools will be learning to read and write through this medium. (Recently, the Queen's second son was reported to be doing so.)

To date, objective and subjective assessments suggest that i.t.a. is, on the whole, effective, but the majority of British teachers seem to be playing the game of "Let's Wait and See" until results of longer-term studies are published. In this country, where i.t.a. was more recently introduced, there appears to be similar enthusiasm on the part of the minority using it and a cautious attitude among others.

2. *Bilingualism*

The problem of bilingualism differs in degree and kind in the four countries of the U.K. In Wales and, to a lesser extent, in Scotland and Northern Ireland the continued use of Welsh, Scottish, and Irish Gaelic, respectively, has helped to preserve national identity. Since schools have long had the responsibility for enabling a proportion of the native child population to become bilingual and some research into their difficulties has been carried out, considerable proficiency in handling this situation has developed.

In comparison, the present situation regarding immigrant children is a cause for grave concern. Because of a recent influx of children from such countries as India and Pakistan, immigrant pupils outnumber the native-born in some state schools, particularly those in the poorer parts of English cities. Consequently, there is an unprecedented demand in England for courses in teaching English as a second language and for assistance in dealing with the complications of biculturism.

Immigrant children in some schools are being taught in special classes until the children have a reasonable command of English, and various other experiments and inquiries are in progress. Because, in terms of increased size alone, the problem is relatively new, nothing like the scale of experimentation and inquiry in the U.S.A. has so far been attempted.

3. *Dialects*

English is the first language for the majority of children in the U.K., but it is spoken in numerous dialects and accents. In some regions, the teaching of phonics is made easier by a closer relationship between the way particular words are pronounced and spelled. For instance, a Yorkshire-born child says path, and a Cockney says this word as if it had an "r" in the middle.

Different speech patterns provide a source of entertainment and are generally considered to enrich the social scene in Britain. Consequently, although they create difficulties in communication and tend to preserve social-class distinctions, there are no government-backed schemes to make all children speak "Standard English." Teachers in state schools usually leave local dialects alone and concentrate mainly on clarity of speech and fluency in expression. However, they encourage English-speaking immigrants, especially those from the West Indies, to alter their speech habits.

On the whole, Negro pupils in the U.K. do not resist attempts to change their modes of speech, probably because all schools are integrated and there is more incentive to conform than to do otherwise. In the U.S.A., the situation is rather different and perhaps it explains why teachers in large, urban school systems are not trying to erase the "down home" accents of Negroes but are teaching standard English as a second language for eventual use in job interviews, etc.

Speech differences can not only act as social and class irritants but also may cause difficulties in learning to read and write. It is reasonable to suppose, therefore, that current federal support for a concentrated attack on them will help to solve literacy as well as social problems.

4. *Disadvantaged children*

Literacy problems on both sides of the Atlantic are closely associated with children from homes of low socio-economic status. This fact is not surprising because their home circumstances give them a poor start towards the goal of literacy and not much encouragement to succeed in achieving it.

Because the U.K. is a welfare state, there is not so much need for a War on Poverty program in the material sense, but in terms of cultural and emotional

954

deprivation there is need for it. At present, the state provides nursery schooling for about one per cent of the under fives. Thus, although most of them are from disadvantaged homes, they represent only a small fraction of the child population with a similar background.

At the nursery stage, children engage in activities leading to fluency in the use of language such as listening to stories, relating news, reciting rhymes, singing, and so on. Their classrooms offer scope for imaginative and creative play with bricks, water, sand, clay, and dressing up materials, opportunities which not only enrich their vocabularies but enable them to mature as persons. Nursery children are not generally given formal instruction in reading and writing, but they are given plenty of opportunities to look at simple books and to draw and paint.

Five-year-olds of working-class parentage usually spend their first weeks of compulsory schooling in readiness activities similar to those in nursery classes. However, in rural schools, particularly those in the remoter areas of Wales, Scotland, and Northern Ireland, it is more common to find teachers beginning formal reading instruction with new entrants.

There was a time when it might be said that one of the distinctive features of the British educational system was the provision made for the under-sixes and its special benefits for the disadvantaged child. Now, proportionately more children here are receiving nursery schooling, and about three quarters of school systems have kindergarten programs.

It is good to observe how underprivileged American youngsters are being given greater opportunities to develop the foundation skills of reading and writing through such projects as Operation Headstart. It is also interesting to note how practices which have long prevailed in British nursery and infant schools are being developed here into a more systematic attack on their problems. However, these developments make it even more disturbing if the compulsory age for starting school in the U.K. is changed from five to six.

This revolutionary change is now being considered by a Government Committee. It is one answer to the question of how, in view of an acute shortage of qualified teachers, to reduce the size of classes and still raise the school-leaving age to sixteen.

5. *Shortage of trained teachers*

The U.K. needs not only thousands of more qualified teachers but, I venture to suggest from findings of N.F.E.R. inquiries *(5)*, a much greater number of teachers trained to teach reading and related skills. Pre-service courses cover so many subjects that usually not nearly enough training for this task is given. Moreover, for less dedicated teachers, a greater incentive to take in-service courses is required as well as more courses in some areas.

Before federal aid for reading workshops, etc., was granted, there is some evidence, in such reports as *The Torch Lighters (1)* and *The First R (2)*, that the situation here was similar. Obviously, it will eventually become very different because of the remedial measures taken.

## Other Similarities and Differences

1. *Freedom given to teachers*

Traditionally, British teachers are free to choose the methods and materials they consider best to meet their pupils' needs. They are given suggestions by the school head (who, invariably, has had teaching experience) and by inspectors. Some local education authorities issue brief guides and recommended book lists. Government publications also appear occasionally. However, teachers, provided they are judged reasonably competent, may ignore advice from these sources.

Freedom naturally produces variety in educational practice, and, even in one school, long observation is usually necessary to obtain a clear picture of how pupils are taught to read and write. There are many variations in this country, too, but teachers in a particular school system tend to follow the detailed programs suggested for developing the language arts. It is possible, therefore, to identify an area program here and not in the U.K.

2. *Methods*

The phonic/whole-word controversy heightened in intensity here with the publication of *Why Johnny Can't Read*

955.

*(4)* and soon afterwards in the U.K. when Daniels and Diack *(3)* reported results of an experiment with their phonic-word method. Since then increasing attention has been focussed on word-attack skills, earlier formal instruction for beginners, and systematic progression.

3. *Materials*

These trends are reflected in reading materials published during the last decade. In the U.K., basal systems which provided comparatively little practice in word-attack have generally been replaced or augmented by a specific program to develop independence. (The popular *Janet and John* series, published by Nisbet, is a case in point.) More programs for teaching phonics separately are also available.

Opposition to beginning formal instruction early is still strong, but the fact that i.t.a. and *Words in Color* (Educational Explorers) have been introduced indicates a change in opinion. Similarly, the concept of systematic progression has gained wider acceptance insofar as experiments with McGraw-Hill's *Programmed Reading* course and the *Rank Reading Master* are in progress.

Ideas arising from research and practical experience are quickly translated into materials in the U.S.A., and a number of them are subsequently adapted for the British market. In the resulting profusion, the trends I mentioned are exemplified over and over again. However, apart from the fact that American reading materials are generally more lavishly produced, they differ from home-produced British materials in ways which illustrate other broad differences. For example

(a) U.S.A.
Basal reading systems are usually edited by a team of language arts specialists.
U.K.
Generally, authors of basal systems are teachers and only one or two are involved. (There are comparatively few opportunities to specialize in the language arts.)

(b) U.S.A.
A detailed teacher's manual accompanies each basal reader and usually other parts of the program also.
U.K.
There is either one comparatively inexpensive manual for the whole program, a free guide, or no guide at all. (Manual consultation is not standard practice. This procedure is associated with the freedom given to teachers.)

(c) U.S.A.
Systems generally include reading readiness, attainment, and diagnostic tests.
U.K.
Tests are not usually included in programs. (The under-sevens are rarely tested. Normally, older pupils only take attainment tests supplied by local education authorities. Few teachers use tests for diagnostic purposes.)

(d) U.S.A.
Basal readers are supported by a supply of workbooks, apparatus, and teaching aids.
U.K.
Additional materials are available. (Most primary school budgets do not permit purchasing these in great quantity. In any case, many infant teachers prefer to make their own.)

Recently, basal systems have been published on both sides of the Atlantic which in vocabulary, content, and pictorial illustration are more appropriate for urban, working-class children than those which were previously available. However, no multi-ethnic readers for immigrant pupils and their classmates have yet been produced in the U.K.

As in this country, almost all primary school pupils have the use of a class library and only a small proportion can browse in a school library. Contrastingly, practice materials like *My Weekly Reader* are delivered to many elementary schools here, but to no British schools so far.

Proportionately fewer primary schools in the U.K. have expensive equipment such as projectors, tape recorders, and reading machines. However, the number with television sets is steadily increasing and, last year, the B.B.C. began transmitting programs for backward readers aged seven to nine.

It is appropriate to discuss materials

last for these most clearly illustrate the similarities and differences between the U.S.A. and the U.K. when it comes to developing reading and related skills. The similarities arise from common problems and objectives; the differences from disparate financial resources and attitudes. This country has the resources to provide an abundance of materials and to support research which leads to their development and to an increase in the number of educators with special knowledge of the language arts. In the U.K., plenty of comparatively inexpensive materials are available; there is little money for research and, consequently, few specialists. Moreover, specialization in this field and the establishment of reading centers are not encouraged by some prominent educationists who consider that reading and related skills should remain under the "umbrella of child development." Perhaps they will reconsider it if the goal of a fully-literate adult society is reached sooner in the U.S.A. than in the U.K.

## REFERENCES

1. Austin, Mary. *The Torch Lighters: Tomorrow's Teachers of Reading.* Cambridge, Mass.: Harvard University Press, 1961.
2. Austin, Mary. *The First R: The Harvard Report on Reading in Elementary Schools* New York: Macmillan, 1963.
3. Daniels, John, and Diack, Hunter. *Progress in Reading.* University of Nottingham Institute of Education, 1956.
4. Flesch, Rudolph. *Why Johnny Can't Read.* New York: Harper and Row, 1955.
5. Morris, Joyce M. "Reading Backwardness in Relation to School Conditions," *Reading and Inquiry.* Proceedings of the International Reading Association. Newark, Delaware: 10 (1965), 345-347.

957.

304.

Vol. 10, 65

# 3. Reading Backwardness in Relation to School Conditions

345?

JOYCE M. MORRIS
National Foundation for Educational Research in England and Wales

IN ENGLAND, the duties of local education authorities include the provision of special educational environments for children with grave physical handicaps or intelligence quotients below 70 and remedial treatment for backward readers attending ordinary schools. Theoretically, therefore, all pupils following the normal course in English state schools should be able to learn to read effectively, although it will obviously take longer for those with adverse personal attributes and/or unfavorable home circumstances to do so.

## The Problem in England

National surveys, however, provide some evidence to suggest a wide discrepancy between theory and practice in that, according to test criteria, a sizable proportion of children fail to acquire adequate reading skill after ten years of schooling. For example, the Ministry of Education reported in 1957[1] that, although standards had improved since World War II, approximately 21 per cent of fifteen-year-olds could still be classed as "backward" readers and a further 4 per cent as "semi-literate." Moreover, the Ministry's latest survey[2] indicates that, despite a continued trend towards higher attainment in general, the problem of reading disability in England remains sufficiently acute to cause concern.



## Three Hypotheses to Explain the Situation

What then could be the reasons for this unsatisfactory situation? It may be that a considerable number of educationally subnormal children are retained in ordinary schools through a lack of special provision, or their parents' refusal to allow them to be transferred. This would naturally aggravate the situation for, although research has shown that children with IQ's below 70 can learn to read in special educational environments, one could hardly expect them to make much progress in normal circumstances. Perhaps, too, the proportion of children requiring special treatment in clinics and remedial classes has been underestimated and, if not, some may not receive it owing to a shortage of educational psychologists, teachers, and accommodation. Finally, there is the possibility that reading backwardness can be attributed, at least in part, to adverse factors in schools.

## Inquiries by the NFER

In 1953, the National Foundation for Educational Research began a series of inquiries designed, among other things, to test the validity of these three hypotheses. Our findings suggest that the problem of reading retardation in England is not unduly exaggerated by the presence of educationally subnormal children in ordinary schools. But they indicate that it probably could be reduced if remedial provision was made for more pupils with reading difficulties after the age of seven. For instance, of the backward readers in our follow-up sample, the 15 per cent who received extra tuition in part-time remedial classes made markedly greater progress than the remaining 85 per cent who did not.

Before discussing our findings with regard to the third hypothesis, I should like to point out that we obtained our data on school conditions in a county where children's reading standards are above the national average. It is reasonable to suppose, therefore, that any unfavorable characteristics of children's schooling disclosed by our inquiries would be present to a greater degree in other parts of England where attainment is less satisfactory.

Results of the Foundation's investigations confirm a tendency for retarded readers to have adverse personal attributes and/or unfavorable home circumstances which might largely explain their slow start, and, to a certain extent, their subsequent unsatisfactory progress. But they also show that the persistence of reading difficulties after the age of seven may be attributed, in no small measure, to deficiencies in the provision generally made for late beginners in ordinary schools.

There are grounds for saying that one of the most serious of these deficiencies is a consequence of having had to rely on opinion rather than established fact in guiding the training of teachers. For a long time, a government report[3] has encouraged prospective teachers of seven-year-olds and older age-groups to believe that their task will consist mainly of developing reading comprehension as few children will not have mastered the mechanics of reading by the end of the infant course. Whereas, according to our research, about 45 per cent of children aged seven are below the primer four stage of reading, and, of these, 19 per cent are virtually nonreaders. It follows, therefore, that student teachers destined for junior schools must be trained to give considerable help in consolidating foundation skills imperfectly acquired and/or

[1]Ministry of Education, *Standards of Reading 1948-1956*. London: H.M. Stationery Office, 1957.
[2]Ministry of Education, *Half Our Future*. London: H.M. Stationery Office, 1963.
[3]Board of Education. Report of the Consultative Committee on the Primary School. London: H.M. Stationery Office, 1931. (reprinted 1952)

958

to teach reading from the beginning. Incidentally, Sir James Pitman quoted the statistics on seven-year-olds from our first report[4] when seeking support for experiments with his initial teaching alphabet.

As yet, we have not been able to carry out a much-needed survey of "tomorrow's teachers of reading" in England similar to that described in *The Torch Lighters*.[5] However, interviews with a sample of junior teachers indicated that, in college, they were not usually made sufficiently aware of their role as potential teachers of reading and given instruction and practice accordingly. Furthermore, as only a minute proportion continued their studies by attending refresher courses, etc., learning to cater to the needs of poor readers was largely by trial and error.

From confidential information about these teachers, it was clear that a good deal of our attention must be focused on the part played by the teaching factor in the persistence of reading difficulties. We therefore collected data on 91 teachers responsible for pupils covering the full range of reading ability among children aged eight to eleven. Their classrooms were visited when reading lessons were in progress and observations on teaching methods, materials, and pupil-teacher relationships were recorded. These observations were amplified in discussions with the teachers concerned and in termly records completed by them. Head teachers also gave reasons for the allocation of classes to particular teachers.

By combining information from these various sources, and taking into account the difficulty of their respective tasks, we attempted to assess the teachers' contribution to the reading achievements of their pupils. Briefly, the final assessment for each teacher, expressed as a grade on a nine-point scale, was the result of adding separate scores for a number of qualities which included a few not directly connected with reading, but indicative of attitudes and abilities having repercussions in this sphere. For example, consideration was given to (1) the amount of effort made to improve the class environment initially provided, (2) the degree of interest shown in the reading progress of pupils, in reading as a personal hobby and in reading research, (3) the beliefs held about the efficacy of primary schooling in promoting satisfactory reading standards for all children, (4) the extent of the theoretical knowledge of reading methods and materials acquired, (5) the suitability of the reading methods and materials actually used, and (6) the reciprocal attitudes of pupils to the teacher and the effectiveness of his or her discipline.

Statistical analyses of the data showed clearly that the lower the reading standards of children aged eight to eleven the poorer in quality, according to our criteria, their teachers tend to be. In other words, they left no doubt that, in general, backward readers are underprivileged with regard to their teachers.

We also found that retarded readers generally have classroom conditions which are not only much worse than those of good readers but also compared with other children in their age-group. They are at a distinct disadvantage with regard to class libraries and often the books used in teaching them to read are more likely to hinder progress than promote it. Their particular difficulties are rarely ascertained by diagnostic tests or other methods with the result that the instruction given is usually not directed towards specific objectives. In short, of all the aspects of children's schooling which we examined, the only one which tended to be appropriate to the needs of backward readers was the relatively small size of their classes.

## Conclusion

Thus, the Foundation's inquiries provide some evidence to suggest that other investigators in England have revealed no more than a half-truth by stating "many of the causes of reading backwardness lie outside the province of the schools." If, in the future, as much attention is focused on the school conditions of backward readers as hitherto has been devoted to their individual characteristics and home circumstances, this could lead to a situation in which almost all, if not all, pupils following the normal course in English state schools do learn to read effectively.

[4]Joyce M. Morris. *Reading in the Primary School.* London: Newnes, 1959.

[5]Mary C. Austin. *The Torch Lighters: Tomorrow's Teachers of Reading.* Cambridge, Mass.: Harvard University Press, 1961.

305.

Vol. 8, 63

## 5. Reading Instruction in Israel

211.

SAMUEL NAVON

Reading instruction in Israel constitutes a central problem. The population consists of immigrants from 80 lands speaking 70 tongues. One language—Hebrew—is the basis of communication, mutual understanding, unity, and social integration. However, we are concerned not only with the social integration of these newcomers, but also with their acculturation.

The immigrants have different cultural backgrounds. The chief instruments for their cultural integration are newspapers and books. Acceleration of the process depends on the rate of acquiring reading. A great many immigrants come from eastern communities at a low socio-economic and cultural level. We have the unique problem of teaching them to read a second language in order to raise their cultural level. This adds a special dimension to the problem of reading instruction. Actually, the whole country is a reading school. We teach reading to children in the schools and to working youth in evening classes. There is a special department for language instruction in the government's Ministry for Education and Culture and a network of courses in which reading is taught to adults. The army, too, conducts special courses in reading.

But we shall deal now only with reading instruction in the schools. Reading is not an isolated subject nor an end in itself. It comprises the values and foundations of education, the means of implementing them and their application to the child being taught.

Our state is a young one, only 15 years old, but our history is a long one—thousands of years old. From the Biblical era



to the present time, a vast treasure of human and ethical values was created that must be imparted to the younger generation. On the other hand, we are rooted in the modern, present-day culture. We feel that by counterposing the teachings of our prophets with the culture of our time we can make a valuable contribution to the human, spiritual, ethical, and social values.

The younger generation must be active participants in forging these values. In reading instruction we are faced with the questions of quantity and quality. Quantity—how to prepare the child to read in the shortest possible time so that he can master the tremendous store of knowledge, both past and present. Quality—how to develop a creative personality able to participate in the process of crystalizing cultural-educational values.

The Israeli way of life helps us solve this problem. To create something out of nothing, to find water, to make the desert bloom, to found new settlements—particularly agricultural ones—all these needs require a pioneering spirit, initiative, action. The dynamics of such a life are social life and work.

We have adopted these principles in our schools with the rationalization that life in school and outside will then be identified. Reading, as an integral part of life, must infuse our lives with that same active, creative character. Reading, therefore, is bound up with work and creative learning.

### The Principles of Reading Instruction

Reading instruction contains the following elements: (1) the need to read, (2) life situations, (3) social attachment, (4) product, (5) activity, (6) integration, (7) interest. All fuse together in the process of reading instruction.

In one primitive tribe language is called "hand," meaning "a prolonged hand," a tool of communication. Language developed out of the need to announce something, to ask for something or to tell something. The need arose in actual life situations. Printed and written words are only cultural adjuncts to communication. We must expose the child to life situations that will make learning to read mandatory for him.

For example, children in the first grade are inducted into school life in a special festive ceremony. After the celebration, they go to their room and find that pupils from other grades have prepared gifts for them and hung a sign reading "Shalom" (Shalom is a greeting used daily and on holidays, whose literal meaning is peace). The children then need to decipher this word, and thus "Shalom" is the first word taught in reading. The first graders then want to return the greeting to every grade and thank the teachers who participated in the reception. Reading and writing go hand in hand, and the children write thank-you notes using the word "Shalom." This is true social communication, expressed in an actual social activity.

The children are given a plot of ground. After they have sown the seeds in rows, they need to make signs marking the vegetables they have planted. Learning to read these words arises from a real need in a real situation.

The same applies to garden tools. A storehouse for tools is set up in the classroom, and the children use these tools. They handle them and learn their functions, what they are made of. They use the tools, all labeled. This is one of the basic activities in learning to read.

Work in the garden is accomplished as part of a community unit, and so they learn how to live in society. They emulate their pioneer fathers by redeeming the wasteland, and by doing constructive work they relate to the ideals of work and the pioneering spirit.

The motivation is toward a goal. The goal is not that of the teacher, nor is it the general, abstract goal of reading, but the goal of the children.

When the theme is a holiday, the goal is the celebration which constitutes the peak experience, and reading material is based on the symbols of the holiday, its historic significance, preparations, and the celebration itself.

As for units, we could not accept the usual procedure of one unit taught in science, another in social studies, and a third in the reader. If reading is done in groups, the units can be as numerous as the groups. We therefore searched for a

960

central theme to integrate all subjects. This method of integration and synthesis seems psychologically best suited to the beginners because the child absorbs and expresses himself in his own way. From a pedagogical viewpoint too there are advantages in a central theme for all subjects. This concentration lends importance to the reading material and ties in with the interests of the pupils while they are absorbed in a particular topic.

Central themes are worked out according to a plan designed to make reading a systematic progression from the easy to the difficult, from the simple to the complex. Thus reading instruction is not haphazard and erratic. We have found this method of teaching reading best suited to correlating reading with the child's interests. In Latin the word "inter-est" means "exists-between," meaning a relationship between two things, such as the child and learning material. The child is most interested in reading when it is part of his activities in the area of nature, work, and community life, and when it includes literary-artistic material that is both pleasurable and gratifying. Such activities are possible in play and work, entertainment and sport, in agriculture, construction, communication, industry, trips, festivals, exhibitions, and dramatic play.

The question may be raised: Does this method provide practice in reading? The answer is "Yes." In planning the theme, time is set aside for drill. For example, the children review the words and their parts so they will be familiar with the reading material related to the theme. And what about individual differences? Reading material is planned on various levels so the teacher can fit it to individuals and to groups according to their ability. Each child learns at his own rate but is motivated to make progress. The backward child is not placed in a backward group and his contribution is not considered of less importance. He does not bear the stigma of failure.

## Reading Instruction for Children of Immigrants from Oriental Communities

As has been mentioned above, we have a unique problem in Israel of teaching the children from Islamic countries such as Morocco, Algeria, Tunis, Iraq, Egypt, Persia, Kurdistan, to read. We have experimented with various ways to solve this problem.

*Extension of Kindergarten*

Children of immigrants on a low socio-economic and cultural level need a great deal of preparation before they can read. First we must improve their oral knowledge of the new language. We have to increase their vocabulary, to develop concepts and to foster learning habits.

Education is compulsory in Israel, including children from five years up. However, we have found that one year's preparation before entering elementary school is not sufficient. We have tried to increase the preparatory time by opening kindergartens and nursery schools to children from three to six. This experiment has succeeded, because longer attendance in a planned educational environment constitutes a solid basis for beginning reading in the first grade.

*Education of the Parents*

We have found that instructing the children alone is not sufficient. To succeed fully we must guide the parents, educate them, and interest them in the school. This program includes language instruction, compulsory visits of the teachers to the homes, visits of the parents to the schools for lectures, conferences, and celebrations, and guiding the parents so they will continue at home the activities fostered by the school. Generally, children learn the language faster than their parents and adjust more rapidly to the new life. There is a lag between their progress and that of the parents. The parents are aware that their control and authority over the children are diminishing. Their desire to bridge the gap and catch up with the children makes them eager to learn and be educated.

*Admixture of Culture Patterns*

We believe it is a mistake to regard a minority as inferior, to aspire to absorb it and to demand complete assimilation in the transition to a new culture. We try to utilize the positive values in the cultural patterns of immigrants. We use their folklore in our festivals, their songs, their dances, etc. Thus we bring them closer to

961.

our work in the schools and encourage positive attitudes.

The home conditions of these children are not particularly conducive to education and study. Backward in reading and other areas, they require additional time. We have, therefore, tried to lengthen the school day in the schools these children attend, and we have achieved good results. The children spend most of their day in a good educational atmosphere. The reading period is longer. They do their homework under the supervision of experienced teachers. They have the opportunity of engaging in other activities such as art, play, sports, and handicrafts.

*Qualification of Teachers*

The basic and simple axiom, that the most important ingredient in teaching is the teacher holds true here too. In any case, we are trying to ensure maximum qualifications for teachers preparing to work with this segment of the population, and we give them practical training before they finish their study at the teacher's college. We also conduct special weekly courses for in-service training.

We have experimented with training teachers from the minority groups. This is important, particularly in the first grade. The teacher who speaks the children's language, knows their mentality, understands their cultural backgrounds, is more likely to create the proper climate and closeness that helps the beginning pupil overcome the crisis of starting school and preparing for reading instruction.

The existing readers are not suitable for these immigrant children. It is difficult for them to grasp the concepts, and the language is too complicated. We must prepare special material, better graded, easier, simpler, more meaningful, and in keeping with their span of interest. It is not an easy task, but we hope to accomplish it and to supply them with material that will simplify the process of reading instruction.

*Individual and Group Help*

It is always better to prevent reading backwardness than to have to remedy it. A child in the first grade, who has trouble at the outset but receives individual help, is less apt to lag behind and become a remedial reading case. Help is given—mainly after regular hours—both to individual children and to small groups. Experience has taught us that in this way we decrease the percentage of children who need the help of an expert in remedial reading. The psychological advantage inherent in avoiding the sense of failure and disgrace for the child who is backward in reading needs no emphasis here.

*Use of Vacation Time for Reading*

Time is one of the important factors in reading instruction. This is even more true with children for whom the reading process must be accelerated. The number of school days in the school year is definitely not sufficient. It is necessary to use part of the vacation period, especially the summer vacation, for additional instruction. These children are less independent in reading on their own, and we cannot rely on their reading to themselves. The home, too, is not apt to create the proper conditions for practicing reading. A large part of what they learn is forgotten during a prolonged interruption, and we must start from the beginning. Use of the vacation period for reading is likely to be a decisive factor.

*Less Reading Material and More Review*

We have learned from experience that the less reading material we use and the more we review the greater is our success. We must bear in mind that the child has a twofold problem: he must acquire the oral language and its sounds, and the reading symbols and their sounds. Less material and more review helps overcome this difficulty, makes it easier to perceive and remember.

In Israel, as in other countries, the dispute among the various methods, especially between the analytic and synthetic approach, continues. Each claims to be the best and cites evidence from experiments and experience. The teachers are confused and dissatisfied and try to find an eclectic compromise: they use a little of this method and a little of that. But this too is no solution without a yardstick.

It seems to me that the divergence of approaches stems from the fact that the child himself at the age of entering school confuses us. He reveals himself in contradicting ways and we don't know what his



real nature is. We are confronted with a dichotomy between play and work, legend and reality, creativity and technique, egocentricity and sociality, freedom and discipline.

Every educational philosophy that endorses a set ideology has chosen one phase of the child's development and has built a method of education and instruction on it. Basic research in child development has revealed that it is not monolithic and one-way directed. Development is an integrated process that has two bases, seemingly opposed, but which really complement each other.

The rhythmic basis in the world and in the individual determines the dual process of development. The functional-integrated process in the child's development indicates clearly that analysis and synthesis are two components of the same process. The contradiction between the global and phonetic approaches is illusory. The discrimination of printed symbols is not a "one-way" process: it is neither an accumulation of "Gestalten" nor an accumulation of "elements." Perceiving always moves in a "two-way" direction. Analysis and synthesis are interrelated and integrated, rhythmically and reciprocally. Moreover, just as there are typological and individual differences in sense perception, so is there also a tendency to one component or to the other. This functional approach solves the problem of typological and individual differences.

In conclusion: We still have a long way to go in both theory and practice in reading instruction, but the outlook for the future looks optimistic.

306.



Children, thousands of them, often with very limited experiences with printed words, often in poor health, must be taught to read, often by poorly trained teachers, often with limited materials. And they must be taught to read in English, a language which is not their mother tongue. The problems seem insurmountable; the wonder is that so much is accomplished.

In general, in the Western Region of Nigeria, children begin Primary School (which is free but not compulsory) at about six years of age, receive their first reading instruction in Yoruba by a method that combines "look-say" *sight vocabulary* with phonics, and begin to learn oral English by at least their second year in school. By Primary Four most instruction is in English but Yoruba is continued as a subject. From Primary Five upward *all* instruction is in English.

By the end of the six years of primary school many students are barely literate in both Yoruba and English. They can name words but they have limited comprehension. They do not read for pleasure. For most children this is the end of their formal schooling and it is not enough. Those who go on to secondary school struggle with difficult material for which they have inadequate backgrounds. They work extraordinarily hard, relying on memory rather than understanding, and plod through their studies at a painfully slow rate. Stevens reported the mean reading speed of a group of fifth form boys to be 140 words per minute with only about 20 per cent comprehension. When one remembers that these are highly selected boys the picture is all the more depressing. A survey of the reading skills of University of Ibadan undergraduates showed vocabulary scores similar to comparable American students but very poor comprehension and speed.

It is not hard to understand the students' difficulties. In the first place, English is a second language, and one which many of these students will use only part time. They have to think of the accepted form. It is possible to learn about their reading difficulties from their written work. They make corrections in even a simple paragraph; they use grammatically correct, but unusual, expressions. The ma-

## 2. Reading: A View from West Africa

ANNE MCKILLOP ROBERTSON

FEW EXPERIENCES provide a better perspective on the importance of and the problems in teaching reading than a visit to one of the developing countries. My best opportunity to gain such a perspective came in six months spent in Nigeria.

Literacy divides the country. Vocational and social opportunities are unlimited for the literate, increasingly limited for the illiterate. And the bare literacy that was adequate a generation ago is no longer so.

963.

terial they are asked to read is written by native speakers who use the standard form. This form is familiar to them, but is not quite like an old shoe. To read effectively the language must have become an old shoe. One would expect that these students would be less aware of figures of speech, of contextual clues, of sign posts in sentences. As seen earlier, their errors give clues that this is so.

Another factor making for difficulty is that few of these students have read extensively for pleasure. Only one out of fifty students queried was reading a book for pleasure when they were asked the question. School children have had few opportunities to taste the joys of reading, reading that is easy enough so the reader can go quickly. Suitable materials are not readily available. The content is often strange and unappealing. Reading is a laborious process for many secondary school youngsters; it is easy to see why they are not fluent readers when they reach the university.

Instruction in many primary and even secondary schools has emphasized oral reading, and provided little help or experience in silent reading. Children are told to "read it to yourselves;" they are rarely shown how to do this. Even in secondary school it is not uncommon to hear students in a class reading, in turn, paragraphs from the selection they are considering. This oral work is justified as providing practice in English and as affording the teacher a check on pronunciation. But it is often overdone, and becomes "Reading" to the pupils. Often, too, students are asked to pick out figures of speech, or common or difficult expressions from the novels or other material they are reading silently.

The pressures under which many students work make it difficult for them to concentrate and achieve. Many university students live in fear of failure; so much depends on passing the examination. Many have financial worries; many strive unduly to please, to do the right thing, rather than to think freely about the ideas presented. Undoubtedly there is a great deal of anxiety among students.

Perhaps the startling thing is that, in spite of this paralyzing anxiety, in spite of poor reading instruction, in spite of unsuitable and limited materials, these students do as well as they do. Their intelligence and diligence accomplish much.

Many questions remain to be answered. We know very little about reading skills in a second language, both when the first is rarely used and when it continues to be used. What limits of speed are customarily reached? Is there a certain level of comprehension which must be reached before practice in speed pays off? What comprehension difficulties are prevalent? Does the reader of a second language ever attain the skill of the reader for whom that is a first language? Do these same problems haunt the child whose first language was not Yoruba but a non-standard form of English?

It is relatively easy to make recommendations for West Africa. Perhaps these are equally applicable to our own programs. The key obviously lies in the primary and secondary schools and Teacher Training Colleges. When schools provide easy, attractive, interesting reading material beyond the textbooks; when teachers are helped to enjoy reading so they, in turn, can introduce children to its joys; when reading instruction of the sort described above is provided even in upper classes; when these are accomplished, the reading of secondary school and university students will improve.

In addition reading instruction should be provided at the upper levels. This should not be thought of as a remedial program for students who are somehow deficient, but rather as a program of instruction in necessary skills. The skills to be taught include general study skills, note-taking, essay writing, and use of references as well as specific reading skills.

The emphasis should be on speed of *comprehension,* not on speed alone, on precision of understanding; on fluency with relatively easy material; on the use of grammatical knowledge as a reading aid; on how and when to skim, how and when to read carefully; and on the relation between reading and writing. There should be little attenion to words in isolation. Much of the success of a program depends on the involvement of the students. If reading improvement is something someone does to them, the program will fail; if it is something *they* do, it will succeed. For this reason, the wisdom and skill of the instructor are of great importance.

Our new perspective on reading gained from a visit to West Africa can provide a fresh look at the relation between speed and comprehension, the relation between reading and language knowledge and the sources of comprehension difficulties.

259.

964.

Vol. 10, 65 307.

# 3. The Teaching of Reading in India

394.

ELEANOR ROBISON
Oakland, California Public Schools



IT WAS Mr. Nehru who said, "Beware of the man who sets himself up as an authority on India." For almost any statement he would make, a contradictory statement could be made, and it could be equally true. India is a land of great diversity. From the snow-capped mountains of the Himalayas, to the torrid tropics of Cape Comarin, India is truly the land of *The Blind Man and the Elephant.*

It could be equally stated "Beware of the man who today sets himself up as an authority in the field of reading" and yet, I am to write about the two—reading and India, truly a double hazard. There is only one thing of which I am sure, and that is that 80 per cent illiteracy in the largest democracy in the world—450 million people—is sad and dangerous for the Indian people themselves, and alarming when we consider the world situation today.

Let us recall the situation in India as it was in 1947 when India gained her freedom from England. Five per cent of the children of India were in school at that time. The schools were English schools, lifted from England and set down in a country quite different in its culture. The five per cent were the elite of India, and there was great status connected with going to school. This status still exists in India, and still many people are sending their children to an English-type private school.

One of the first concerns of the new government was to get children into school. The government realized that if they were to be a free country, they needed to educate their people. They immediately began a program of establishing schools for all children. Now in the middle of the third five-year plan India has 63 per cent of its children in the age range from six to eleven in primary schools, and long-range plans for the fourth five-year plan are being drawn up.

I quote from a paper given by J. P. Niak, the Adviser to the Ministry of Education on Primary Education, on plans for the fourth five-year plan.

> The next 10-15 years form the most crucial period in the history of India and the entire future of the country depends upon what happens or does not happen in this period. As education is the most significant factor in national development, this is equivalent to saying that the entire future of the country would largely depend upon the development of Indian education during the next 10-15 years...Among the special features of the fourth five year plan is the need to shift the emphasis to qualitative improvement. The last sixteen years have been a period of unprecedented expansion in Indian education ...As a consequence of this expansion, the quality of education has been diluted....[1]

In considering the quality of education, one of the areas which the Ministry looked at was *reading*. The Ministry knew and realized that a large per cent of their adults were illiterate, and they were concerned with the level of reading of those children who were in school. By our standard and our definition of reading, these children were not reading. They were memorizing page after page and were giving this back to the teacher, with seldom a question asked that would be concerned with comprehension.

## The Reading Project

In April 1963, the Ministry of Education set up a reading project at the University of Delhi. This project is under the auspices of the National Institute of Education. The American Agency for International Development was asked for consultants to this reading project. Constance McCullough and I went to India in August, 1963. I returned in August, 1964, and Dr. McCullough is still there. We were to assist the Indian committee with their plans for the improvement of reading and to guide them in the preparation of a series of developmental readers, in Hindi, for the first five grades of school. We were two of nine members of the teacher's college team in India. All members were concerned with some aspect of Indian education.

1. What was our task in assisting in the preparation of reading materials? A fundamental premise in the development of these materials was that assistance be given to the Indian committee on their plans and in no way impose a Dick and Jane or Tom and Betty upon India. We began by listing a few areas of inquiry:
   a. What vocabulary is known to pupils in first grade?
   b. What interests do the pupils have in common?
   c. What values are treasured by Indian society?
   d. What does research in methods of teaching reading suggest for the approach in the new books?
   e. What do the findings of linguistics suggest for the grading of language materials in these readers?
2. What else needs to be done to "up grade" the teaching of reading in India? We asked the following questions:
   a. What are the qualifications of the present teachers of the primary schools?
   b. What is the in-service program for the teachers?
   c. What should the teacher training institutes do?

To answer these questions surveys were carried on:

a. Seminars were held to train teachers how to carry out a survey of first grade pupils' vocabularies. This was done and the vocabularies tabulated.
b. A similar study was made of pupils' interests.
c. A study was made of existing readers. Such a picture as the following was discovered.

   Total number of words in the primer varied from 296 to 1397. Number of different words

[1] J. P. Niak. *Educational Reconstruction in India.* Ministry of Education, Government of India, New Delhi.

965.

from 140 to 490. Average repetitions were 2.5. Percentage of words used only once or twice was 80.2. This just gives a picture of the confusion regarding textbooks. It was also found that 40 per cent of the pupils had no books.

d. It was difficult to find those values which were important to build into the readers. However, a list of health concepts, agriculture and labor ideas was kept close at hand during the production of the books.
e. Dr. Keskar, an Indian linguist, came from the University of London to discuss the linguistics of the Hindi language.
f. Hindi, being a purely phonetic language, gives no problem as to method of decoding the language. However, the inductive method of discovery, the stress on meaning, and the incorporation of handwriting with reading were used.
g. A course in the teaching of reading was given the summer of 1964 to thirty teacher trainers in the hill station of Nanitol. The American consultant played an important part in that course. The lectures from that course will be published as a professional book.

**Accomplishments**

3. The accomplishments have been realized slowly but the satisfactions are deep in the following:
   a. An impressive book, *Preparation of Textbooks in the Mother Tongue,* has been published by the reading project. This should be a guide for the publication of textbooks in any of the 14 major languages of India. This contains considerations for developing texts, it points up research and it discusses approaches to the teaching of reading. It also discusses the textbook as an instrument of change.
   b. A reading readiness test in Hindi was published and standardized on five thousand children in Delhi State.
   c. The first five books of a series of developmental readers have been designed and are being prepared for the six Hindi speaking states. Primer, Book I and II, are ready for press.
   d. Teachers' manuals to accompany the books are being prepared.
   e. Many "papers" have been prepared on the topic of reading.
   f. Filmstrips, plans for courses in the teaching of reading to be given in the teacher training institutes, are on the drawing board.

In fact little fires are being set all over India by the reading project.

**Other Projects in Reading**

Others are working on reading also. Mrs. Wealthy Fisher, at Literacy Village in Lucknow, is known world-wide for her efforts in teaching adults to read and the preparation of simple reading materials. The United States Information Service is publishing some American trade books in Hindi. England is assisting with the teaching of English as a second language. Indian writers are being urged to prepare books for young children. Our State Department sent Mrs. Eunice Bohanan to India to discuss the publication of children's books. Germany, just last year, published *Grimm's Fairy Tales* in Hindi. Russia is producing picture books in Hindi for Indian children.

**India's Problems**

Some of the overwhelming problems which India recognizes are:

1. The dropout problem. Out of 100 first graders, 60 go to grade two.
2. The average Indian income is $75 per year.
3. Teachers are poorly paid ($12-$17 per month); some servants receive more.
4. India spends $3 per child per year on education.
5. Many schools are under the trees. One chalk board, one chair, and one table are the equipment.
6. Forty per cent of the children have no books. Books are paid for by parents. One rupee (2¢) is the most a book may cost.
7. India has 14 major languages and hundreds of dialects.



India is eighteen years old. At times it is like an eighteen-months baby. It runs, falls down, wants to do things itself, but it needs a helping hand. We will always remember that India is the land of Mahatma Gandhi and Jarwabal Lal Nehru, two of the greatest world figures of our lifetime. They were India's gifts to the world.

I would like to end with a quote from our late President Kennedy. He said about our aid program, "Go to the country, not just to make friends, or even to buy allies, but to defeat poverty, and to affect history rather than merely observe it." Those of us here who know the importance of reading, know that to teach a country to read, and to teach reading as a thinking process, will affect history.

966.

308.



By developmental reading I mean specific training in reading efficiency for students who do not have marked physical or psychological deficiencies that require individual treatment. This training aims to help any or all but a few of the students in a high school or college, whether they are good, fair, or poor readers. The basic aim is to improve speed and comprehension. This is done through learning about the reading process, by developing flexibility, by improving the physical processes and habits involved in reading, by improving vocabulary, and by learning the various techniques in attacking any facet of reading.

Reading programs with these general aims are of course to be found all through the high schools and colleges in the United States, even though the method, emphasis, and procedure may vary widely from one program to another. When I decided to see what was being done in this area in selected English-language colleges in some other parts of the world, the first problem was making myself clear. People with whom I corresponded prior to my travels reacted in any number of ways. "Of course we teach reading," one said; "in every course good English is required." Another said, "We feel that students learn to read in grammar school, and if they cannot read, they don't get into this university." A third and persistent observation was "We have heard of the wonderful speed-reading courses in the United States and we are eager to learn how to read faster." And those who had programs were almost uniformly eager to exchange ideas and learn what is being done in the United States.

Armed as I was with some specific and much sketchy information, I set out to visit some of these schools. What I report here are some facts about the reading programs in five schools selected from the twelve I visited. Along with the facts are observations and reactions that are personal. Another person might react quite differently, or had I visited a different series of schools my own responses might have been—indeed, surely would have been—quite different. Hence, because it was too easy to get a wrong or at least a partially wrong impression, I am not naming schools. I don't want to make

Vol. 8, 63

## 6. A Glance at Developmental Reading Outside the United States

BERNARD SCHMIDT

The term "developmental reading" is, of course, used to mean several different things; this fact seems to bewilder many people outside the United States almost as much as it does many of us. I will not go into these various meanings, but will try only to define the term as it is used here.

967

quick judgments based on visits often obscured by language barriers and other pitfalls of the junketing investigator.

All of you know of the large number of reading programs in the United States. In numbers and variety I think it is safe to say we are far ahead (or behind, some would say) of the countries I visited in Asia, the Middle East, and Europe. We simply have more programs using the present definition of "developmental" than they have. Some had never heard of this approach; some, like some of us, were skeptical; others were eager and enthusiastic, but had no money; still others were making a small try. And a few had fully organized programs.

I think there are several more or less obvious reasons for this state of affairs. In most of the schools, English was to the majority of students a second language. You can see at once, therefore, why for many of them reading had to be learning *to* read, not learning how to read more efficiently. Speed, for example, had to take a back seat to syntax, idiom, and the like; comprehension had to be on a more simple level than in many of our colleges. Then, too, there were schools where the old German notion of scholarship or the rather severe requirements of the English-type university prevailed. Here a course in reading efficiency was sometimes looked upon as it often is by some of our own old and long-pedigreed graduate schools. But I think the main reason for fewer programs is that the reading bug in many places has just begun to bite. The "westernization" of many colleges since World War II is apparent everywhere—not only in the large number of students, but in their varied and often humble backgrounds. Again and again I was told that money and space prevent larger enrollments in schools that even now have increases of 20 to 30 per cent every year. While in most cases entrance is by examination, officials said repeatedly that for every qualified student admitted, there are two or three qualified for whom there is no space. And it was usually in these mushrooming schools, where entrance requirements, curriculum, administrative procedures, and student-faculty relations were leaning toward the American system, that reading programs were most likely to be found. Here the efficiency-in-reading concept has the most firm hold of the imagination.

There is another fact that will, I believe, have some bearing on the spread of instruction in reading efficiency. The English language is rapidly becoming the international language; and in addition, I found English to be the "second" language more than all other languages put together. And with the spread of English, I believe, will go the interest in reading improvement. You can see this already, in the most improbable places and often stated in a most unfortunate way. "Ah, yes," I was told in places thousands of miles apart, "you Americans can teach people to read at 2,000 words per minute. How do you do it?" This point of view is of course not the only one; many of the people interested in reading improvement have their feet closer to the ground, but the Prairie Fire School, as I like to think of it, has had more publicity in the foreign press, I'm afraid, than all the other schools put together. And a lot of the foreign people are as disappointed as our own students when they are told that very, very few people ever read at even 1,000 words per minute. I recall in particular a dean in a small school, who, before letting me see his reading teacher, took me to his office, had coffee brought in, and then wanted to know how *he* could learn to quadruple his reading speed. As we all know, talking to deans is difficult enough under any circumstances; telling a dean that you can't do very much for him is harder still. Yet it's easier to talk to his kind than to those who say, as one did, "I don't want our students to read faster; I want them to read slower, so they get every bit of what's in the writing." To tell such people that research doesn't show that slow readers necessarily get more than fast ones is of little avail.

And now to a few programs selected at random.

The first case is one that you could find duplicated in almost any of our states, either in high school or college—all except for the magnificent view from the classroom window. Here is an eight-weeks course that meets two times a week, in 50-minute periods. Classes are limited to 25.

Students are selected on the basis of need, as determined by a standard reading test. Use is made of timed essays, vocabulary workbook, pacers, and lectures. The instructor told me he had had a lot of trouble with administrators, who were suspicious of the course. His results, however, were good enough: doubling of speed and a 5 per cent gain in comprehension, based on standard testing devices. He pointed out that his materials had to be somewhat easier than average because to many of the students English was a second language. For his freshmen he used 11-12 grade reading matter. This instructor was a psychologist, and had had reading-teacher training at a West Coast university.

The second school is a good example of the confusion in terms concerned with reading. Correspondence indicated that the school did have a reading program. As it turned out, "reading" meant oral reading in the freshman and sophomore years in a composition-speech course. Here there is a great deal of study in sentence structure, grammar, punctuation; there are exercises in pronunciation, (corrections being made by both the instructor and the better students) and there is work in debating and recitation of essays and poetry. Although all students are expected to know English when they get to this university, and English is required in grades one through twelve, the course is nevertheless required of all incoming students.

However, the same school has a course called English Comprehension. Here there is intensive work in idiom, main idea, organization, kinds of English prose, and vocabulary. Although there is no timed reading, comprehension questions in multiple choice form are used for some of the essays studied. My impression of this school of 13,000 is that the standards are high, the students and staff able, and that a lot of western ideas are being examined. The department head complained that there was room for only one out of three of the students who passed the competitive entrance examinations. He took all the information I could give him on starting a more specific reading course. He felt that many students are very slow readers because they are afraid to go faster, that they are following the word-by-word pattern they used in learning English in the lower grades. Furthermore, the structure of the language is baffling. They use as many American books as possible, he said, because such books are especially useful in idiom and structure.

The next university has a course called Reading for Comprehension, given by the English Department. It is mandatory only for "weak" readers as defined by an elaborate silent reading test with multiple-choice questions. The test has several questions on main idea, theme, author's purpose, and tone. The material in the course itself consists of provocative essays, poetry, and short novels. Students are encouraged to read the material twice before class—once rapidly to improve speed, and the second time a bit more slowly to sharpen insight. The course chairman said classes are informal, and discussion is encouraged. The main stumbling blocks are idiom, author's purpose, and the literal-mindedness of many students, who know the English language, but not what the language can mean. The novel *Animal Farm* is used to illustrate this. The chairman said that even many of the brightest students are confused by the Orwell novel. Author's purpose is discussed at great length in this course. Both objective and essay questions are used in testing. But it is in no sense a course in composition—rather, as the chairman said, a course in "how to think in English."

Again in this school, many students are turned away for lack of space. Like most of the other educators I talked to, the chairman felt that the teaching of English as a foreign language was one of their most important problems.

In this school really severe cases are sent to special tutors in the department of psychology.

The fourth school is privately owned and operated; it is run for profit. Situated in a country where public education has lagged, it has low standards. It eagerly accepts any graduate of high or technical school, and there is a good deal of beating the bushes to get students. As a result, the enrollment of some 10,000 is an odd mixture. The course which was supposed to be a reading course was a substandard

969.

variety of remedial English. The workbooks, published by the school, were of perhaps junior high school difficulty. There is a great deal of oral reading in the classes, executed much as our oral reading is done in grade school. In this country languages are a political football, and three, including English, are required as official. Twenty-four hours are necessary for a major in English. One of the instructors said he had heard about our "speedy reading" courses, and would like to try such a course, but the administrators said it would have to be in all three languages, and that would be too expensive.

The fifth school has one of the best developmental reading courses of which I know. The man in charge was once head of a reading laboratory in the United States. The instructors are trained by him. The course runs 16 weeks, meets twice a week for one hour, is not required, but has three times as many applicants as can be cared for. One hour credit is given. Student enthusiasm runs high. The materials used are workbooks, pacers, films, and tachistoscopes. Both speed and comprehension are emphasized. There is much work on flexibility, different kinds of comprehension, vocabulary, idiom, analysis, and reading for appreciation. There is a well-equipped laboratory with a large library of books and magazines for use with or without the pacers. The course is a kind of showpiece for the university, and good relations exist between the reading staff, administration, and public. Night classes for adults have been added and have been very successful.

970.

309.

391.

# G. INTERNATIONAL ASPECTS OF READING

## 1. Reading in East Pakistan

NANCY YOUNG
2020 Gulf Shore Blvd.
Naples, Florida

IN OUR CONTINUOUS process of understanding the world of things and ideas we have devised different kinds of classification systems; and through the ages it is found that some of them gained importance while some others lost their identity and became fused into more comprehensive classification systems.

We are very glad to think that reading is a very comprehensive classification system. Reading is identified as a thought process and as such should include in its realm all branches of human knowledge. We agree with Ralph Preston that "the cumulative effect of professional specialization and isolation in reading has resulted in a greater attention on our part to the skills of reading than to the intellectual functioning of reading." We must guard against any narrow specialization and always try to bring in different branches of knowledge around the nucleus of reading.

Psychologically, reading has two facets —cognitive and perceptual. In its cognitive aspect, reading in any language is perhaps the same, but in its perceptual process different languages may have different advantages and disadvantages due to their differences in orthography or other characteristics special to their languages. For example, Bengali, the mother tongue of East Pakistan, has different regional dialects and as such its spoken forms are different from its form used in school textbooks. This elegant written form is mainly different in the forms of verbs from that of its spoken forms. Like different classical languages, Bengali verbs have different inflected forms according to its person, tense, and case. Perhaps, because of such complications, the early grammarians of Bengali language, observing definite rules, spelled the verbs and their inflected forms in a consistent pattern to make them unambiguous and clear from the standpoint of pronunciation. For example, the expression, *"doing"* is



expressed in different dialects of Bengali in different forms, such as (*Kōira*), (*Kōri*), (*Kōre*), etc., but its standard written form is (*Kōriā*). The standard written forms are spelled so phonetically that even without understanding the meaning, anybody knowing the orthography can pronounce them correctly with a very little degree of confusion. However, it can be said that students do not read in the exact form of the language they speak before or after they have learned how to read Bengali. So, the most common definition that reading is a printed talk does not apply with its full implications in Bengali. Here it may be mentioned that perhaps the most distinctive reading problem of English is to make the spelling consistent with the pronunciation of the words, while that of Bengali is to make reading as a printed talk which is basic and essential for any functional language.

We can appreciate the depth of the problem if we stop for a while and consider the implications. It really means that the children have to learn two forms of the language—one is the written form for writing purposes and the other is the standard spoken form for speaking with the elite of the country. The standard spoken form has its written literature and is also used on the radio, in the cinema, and in some newspapers. Eventually, perhaps, this form is going to replace the so-called elegant written form which has already passed through several stages of development in its process of evolution. However, the two written forms are similar in some parts of speech; as a result of which children often times use both the accepted forms of verbs in the same essay or paragraph, which is grammatically incorrect. It is unlike the rule that any of the two accepted spellings can be used; here the pronunciation of the verbs in a paragraph will indicate whether somebody is reading as if talking, or reading literature of the elegant form of the language. This creates a definite stumbling block in the smooth growth of language as a vehicle of thought. This process of learning two forms of the same language simultaneously does not help students by the process of feed back.

The seriousness of the above mentioned problem is not realized even by the teachers until they extend their studies and take courses in the field of reading. In fact, reading as a separate discipline with its specific skills is not identified in the program of teaching. When a child has learned to read, it means that he can pronounce words and sentences correctly. Gradually, he would be taught to explain, to make substance or summary or to answer critical questions either in oral or in written form. No basal reading program with controlled vocabulary is followed. From the second grade, selections are used from renowned authors, and teachers try to explain the contents to the children. As a result, verbalism is predominant. In order to produce students who can read with deep understanding, a great need exists in emphasizing the development of reading skills in the educational program and then encouraging the children to use these skills widely in the different subject areas of reading. It is not an easy job. It requires time, and expert leadership, and reading specialists to work with teachers and children.

971

310.

Vol. 10, 1965

222.

## 2. Teaching Reading to the Handicapped Child

FRANK BRENDEMUEHL
Hopkins, Minnesota Public Schools

THE TEACHING of reading, in fact, any significant educational effort directed toward the handicapped child has had a relatively short history. The intellectual leadership of the 16th century felt that those who had been deprived of hearing ought not to be taught language. The mentally retarded and emotionally disturbed were often chained in prisons and treated as criminals.

The earliest significant effort in the U.S., following numerous European efforts to help handicapped children, was the establishment by a private organization in Connecticut in 1817 of a residential school for the deaf. It was not until about the time of World War I that significant strides were made in establishing special education facilities in local schools. Accompanying the acceptance by the public schools of at least part of the responsibility for the education of the handicapped child, there emerged a discussion as to how best the needs of these handicapped children might be served.

While handicapped children do possess certain definite limitations, they have the same emotional drives and needs that motivate normal children. They possess the same desire for conformity and acceptance that motivates all individuals, but it is more difficult for them to conform because of the limitations resulting from their handicap and because their contemporaries often consider them to be much more of an oddity than they actually are. Currently most practitioners and theorists in special education would argue that, because the handicapped child has manifold human needs and capabilities which are similar to those of all children, he should be included with his "normal" peers in all aspects of his educational experience where it is feasible and his limitations permit.

A differential diagnosis greatly increases the probability of success when embarking on an instructional program. If certain limiting physiological and/or psychological parameters are known, placement recommendations and the outlined program may be more specific. Placement decisions, which are made with the idea of meeting a particular need for the child, may in fact limit program flexibility. A survey conducted by the U.S. Office of Education lends support to this idea. The media for teaching reading to the visually handicapped was found to be more a function of his placement than of his visual acuity. Indications were that the chances are very great for a visually handicapped student in a residential school to be taught Braille without too much reference to his usable vision. His public school counterpart will most likely be taught with print. It is not my point that one is wrong and the other is right, but rather that we should endeavor to have a program of instruction which best meets the need of the child. The issue should be one of what is best for the child with his particular diagnostic constellation or profile.

Needs and goals are closely allied but not synonymous. We as educators in conjunction with medical, psychological and

972

other specialists are able to predict which elements are essential in meeting the observed need. The goals, however, are inexorably involved with the individual child and his concept of the situation. It would seem that when the need is felt by the individual child then it becomes a goal for that person. Here is a very important confluence where knowledgeable counsel and guidance are imperative. The handicapped child needs to be realistic about the limitations imposed by his condition. It is important that he formulate obtainable goals in light of this condition.

There is a continual narrowing and definition as we focus on the problem of the handicapped child. We recognize the very broad and perhaps obvious goal differences which are present among the various handicapping conditions. The expectations for quality of oral reading are quite different for the deaf child and the orthopedically handicapped child. The anticipated level of comprehension varies greatly from a group of visually handicapped children to a group of mentally retarded children. Each area of exceptionality then, while having the broad goal of teaching the child to read, will have a unique set of conditions and goals.

A further differentiation of the goals may occur within an area of exceptionality if not in kind and sequence, at least in the setting and time necessary to achieve them. This might be thought of as levels of service. Placement might be a function of environmental condition as well as the educational, physical, and psychological needs of the individual. Without reference to a specific handicap, the levels of service proceeding from minimal service to most specialized service might be as follows:

1 Regular class
2. Regular class with consultation for the teacher
3. Regular class with part-time special service
4. Regular classes and resource room
5. Special class, part-time
6. Special class, full-time
7. Special school.

The ultimate attainable goal for a child in any one of these levels of service might conceivably be similar. The individual effort and specialized assistance necessary, however, would vary greatly. It is because of this great individual variability that further goal differentiation is necessary.

A third level of goal differentiation is needed in structuring an individual's program over a period of time. These are the day-to-day, or even hour-to-hour objectives which the child is working to achieve.

It is important that the teacher and the child cooperate in planning these teachable objectives and that the child has some understanding of how they relate to more long-ranged goals.

An analysis of some of the problems which may arise in teaching the handicapped child to read may be undertaken by an examination of a communication model. We shall look at this model with printed material and the reading process as our primary concern. It is not our intention in so doing to explore in detail each condition or recommend a program of instruction which, if followed, would result in the successful realization of the child's goal. It is our intention to set out some guidelines by which we might evaluate a reading program and the role the teacher and child play in its implementation.

The ingredients of a model of the communication process are:

1. The communication source
2. The encoder
3. The message
4. The channel
5. The decoder
6. The communication receiver

The communication source is a person or group of persons with a purpose, a reason for writing. The purpose of the source is expressed in the form of a message. This message then is the translation of purpose and intentions into a written code, a systematic set of symbols.

The encoder is responsible for taking the ideas of the source and putting them in the code. With written communication this process involves the motor skills of writing, dictating or typing.

The message requires a channel which is a medium to carry the message. For communication to occur there must be a receiver at the end of the channel. When something is written, it must be read before communication can occur. It is im-

973.

portant to note that the source and receiver must use similar systems for the experience, ideas, information, needs, etc. to be received and understood.

A final element is a decoder that retranslates the message into a form that may be used by the receiver. In our model, these are the sensory skills of the decoder.

It is the decoding process and the provision of necessary experience for the child to interact with the author's concepts that present the challenge of teaching the handicapped child to read. The teacher needs to be continually on the alert to ascertain when communication does not occur. It then becomes his responsibility to bring the source concept or message into the experiential or perceptual field of the intended recipient. He helps the child break the code or build the concept. This may be done by (a) using material at a level more in keeping with the intended recipients lever; (b) providing the experience necessary to build the concept; (c) restating or reorganizing the material as it appeared in the original source. The selection of the source may well help to give proper emphasis to the program. A hearing handicapped child may, on the basis of diagnosis, need a program which emphasizes a sight approach. The teacher could further emphasize this mode by selection of activities from the guides and manuals. A slow introduction of words and concepts with many concept-forming activities and much repetition with reinforcement such as can be provided with programed readers may be the best general program for teaching the mentally retarded child to read.

Many elements in common are involved in teaching reading to handicapped children and normal children. The needs to adapt to or circumvent outstanding weaknesses are dissimilar. Normal conceptual experience and oral language facility cannot be assumed and often need to be developed from a very low developmental level. The reading teacher will need to make some of the same adaptations, but perhaps at a place on the continuum closer to the "normal."

974.

311.

### b. Implementing the Changing Concepts in Remediation

67. PATRICIA M. BRICKLIN

When discussing changing concepts in remediation, it would seem wise to talk about them within the framework of two major trends in the field of reading disabilities: (1) A more widely accepted and more inclusive definition of the problem.



(2) The wider acceptance of reading disabilities as only one symptom in ineffective functioning in the whole child. Each of these trends has its own implications for remediation and suggest ways in which a clinical set-up might operate to implement them.

Considering the first of these major trends, we seem finally to have departed from the grade level standard for determining reading retardation and in general are accepting the discrepancy between a child's mental ability and his level of achievement in reading as our index of retardation. Of course theoretically we have been doing this for some time. Practically speaking, this has not been the case—especially in relation to the so-called "gifted" child reading at grade level but far below his own mental ability level. But this is only one part of the more widely accepted definition of a reading problem. We have also included in our reading disability population, children who present no problem with the word recognition. These youngsters' difficulties lie in the area of understanding what they read. As our research knowledge of the vast complexities involved in comprehension grows, "comprehension problem" children, whose difficulties range from "no understanding" to subtle difficulties with higher level critical thinking skills, join the ranks of the reading disability population.

The major implications for remediation growing out of this first trend toward a broader definition of reading disability are two-fold: (1) It increases by tremendous numbers the children included in the reading disability population whose problems necessitate remediation, and (2) a much wider scope of organization, methods, and materials for remediation must be considered. Taking these two implications for remediation, what are the ways in which a clinic may function to implement them? Growing out of the first point (since there are so many more children involved), the question of whether or not it is the function of a clinic (even if it were practically possible) to provide direct remediation for all this increased population of retarded readers arises. In a direct sense, I think not. It has been suggested that reading clinics of the future will handle more and more cases. If this is true, it would seem that they ought to be more and more of the severely disabled readers who cannot possibly profit from regular classroom instruction or corrective reading classes within a school. The clinic ought to be seeing *directly* less and less of the youngsters who can profit from remedial and corrective techniques incorporated into regular classroom instruction.

#### Moderately Retarded Readers

I believe that the major ways in which a clinic can provide the most meaningful service to the less severely disabled readers are: (1) An Indirect Service. The majority of teachers who come to a university or school clinic for training in remediation are seeking knowledge which can be directly translated into a regular school situation. It is the responsibility of the clinic to provide not only training in remedial and corrective techniques specifically successful with severely disabled readers but also to stress in its training program the ways and means of classroom remediation. This would involve demonstration and direct practicum experience with a variety of word recognition techniques (visual-auditory-kinaesthetic); ways to develop thinking skills; techniques which incorporate listening, speaking, reading and writing experiences and ways to evaluate the success of remedial and corrective instruction.

(2) A More Direct Service—Cooperation between school and clinic in instructional planning for youngsters where both the classroom teacher and clinic share in the actual program of remediation. Let me give you an example here.

Bill, an 11-year-old boy in the 6th grade, was reading at 4th-reader level and thus was considered to be moderately retarded in reading. There were relatively few problems in non-academic areas. Specifically, his reading problems were two-fold. In word recognition he had problems with the more complex phonetic and structural analysis skills, problems which were also reflected in his spelling performance. In comprehension his problems involved organizational skills. He could obtain a series of isolated facts from a selection but could not organize

975.

them on a listening, speaking, reading, or writing level.

Bill's classroom teacher, the school reading teacher, and the clinic staff member sat down together to plan a coordinated program for Bill. Within the classroom, opportunities were to be provided for development of organizational skills through content area materials. Science and social studies materials, pertinent to class topics, but at Bill's reading level were located and original materials prepared. These formed the basis for work on organized spoken and written reports. Spelling was incidental and functional growing out of a need to learn specific words for reports, etc. The school reading teacher worked with Bill and several other children with similar problems during the so-called "reading periods" of the school day. Here a more direct attack on his specific word recognition difficulties was made as well as more specific attention to his reading comprehension problem. Materials were related to those being used in the regular classroom. The approach was a guided reading lesson or directed reading activity. Since Bill did not need a kinaesthetic method for learning words, a visual auditory approach was used stressing particularly meaning and accurate auditory and visual perception. In the school aspects of his program of remediation, the clinic specialist actively participated in the location and preparation of materials as well as being available for questions and to evaluate directly the success of the program. Let me mention here that Bill also participated directly in the planning of the program. Finally, it was decided that as a culminating effort, Bill would spend a summer at the clinic school to "polish" skills acquired during the school year, have a very intensive individual attack on remaining problems, which would provide better opportunities for retention and readiness for beginning junior high school in September.

The program was quite successful and is just one example of *a* way in which clinic and school can function together to directly aid the moderately retarded reader.

We have just considered briefly the first major trend in the field of reading disabilities which has led to much larger groups of children being included in the reading disability population. We have shown how a clinic can function both directly and indirectly to more effectively implement remediation particularly in the less severely disabled reader.

### The Severely Disabled Reader

The second major trend—the acceptance of reading disabilities as a symptom of ineffective functioning in the "whole child" has particular implications for the treatment of the severely disabled reader.

Research to the present has identified enough factors related to reading disabilities to once and for all rid the literature of the "isolated defect view" of reading disabilities. Emphasis has shifted from psychological to physiological to sociological to pedagogical and back again —to the view that all are important in varying degrees in all cases. We must accept the fact that reading is a problem area which encompasses all aspects of living. Problems in reading affect and are affected by the organism and the environment in which it functions. Which factor or factors play the paramount role vary from child to child. If we accept this view of reading disabilities, obviously treatment of the symptoms alone is not sufficient. This, of course, has led to the need for specialists in other disciplines (physicians, psychologists, social workers, etc.) to become actively involved in the field of remediation.

After such questions as: "Is the child visually or emotionally handicapped in relation to learning?—Are there neurological problems which dictate the need for medical treatment or special instructional techniques?" have been answered by the diagnostic team, a systemmatic program of total remediation can be planned. Here the approach must not be an isolated treatment of each of the contributing factors with little or no communication among the various specialists involved in the remediation. Rather a coordinated approach must be provided. Whether the allied specialists are part of a clinic staff or work closely with a clinic staff is not the crucial issue. Coordination through mutual goals and some type of communication is.

Let us consider several examples of a

976.

coordinated approach in action. Two 12-year-old boys of better than average intelligence all reading at second-reader level or below were enrolled in a full-time clinic school program of remediation where instruction was geared completely to their individual problems. The original diagnostic studies of the two boys had uncovered different contributing factors operating in each of the boys which necessitated the aid of specialists other than a reading specialist, whose treatment had to be coordinated with the instructional program of remediation.

The first boy, George, had a glandular problem. Physically he was somewhat obese and had appeared lazy and indifferent to success for some years. Thyroid medication prescribed by an endocrine specialist accomplished two things. George began to lose weight and his improved physical state did much psychologically to improve his concept of self. The indifference and lassitude which had characterized his behavior gradually diminished and he became more receptive to instruction. However, it was necessary for the physician and reading teacher to communicate fairly often in the initial months of remediation in order to determine the adequate maintenance dosage of thyroid. There were times when the teacher told the physician that George had been irritable and distractible for several days. Medication was decreased. Again at other times he was lazy and indifferent. Much patient discussion back and forth took place before the appropriate level of medication was found.

The second boy, Vern, had dominant and pushing parents. Both parents demanded excessively high standards of performance from Vern and were convinced that no one else ever had a problem-son like theirs. The coordinated treatment approach here involved group counselling of the parents by a therapist together with the warm, accepting interpersonal relationship which existed between Vern and the reading teacher. Through group therapy the parents gained understanding of how their behavior had contributed to Vern's problems and that their problem was not unique. Very gradually parental attitudes changed. Communication between the group therapist and teacher provided a measuring gauge for the total family progress.

We have discussed briefly the second major trend in the field of reading disabilities and some examples of a co-ordinated clinical team approach to total remediation, especially in the case of the severely disabled reader.

### Concluding Considerations

There are at least two other functions of a clinic in implementing the changing concepts in remediation—public relations and research.

There is always going to be a "time lag" between well-substantiated theories being put into practice and information which reaches the general public. In one sense this can be good for it often keeps unsubstantiated "all or none" methods from reaching the public. However, there are many situations when this "time lag" becomes so great that it interferes with the implementation of valid changing concepts or when numbers of children are prevented from receiving adequate remediation because of persistent public misbeliefs. A clinic staff through publication of its services, through talks to parents and especially through articles for the non-professional press, can do much to sidestep this handicap to the implementation of changing concepts in remediation.

Research on remediation involves time before the success of particular techniques, materials, etc., can be really evaluated—too often an impatient experimenter is *not* willing or cannot wait. Secondly, clinics are too often labelled by their theoretical approach which as time goes on can often became a rigid bias. Research coming out of that clinic often emphasizes one theme and one theme alone. Our willingness to abandon on the one hand or embrace wholeheartedly on the other teaching machines, Berger's mirror writing techniques, Smith's remedial therapy, the advantages of combined therapy and reading instruction—to mention only a few—should be tempered by an open mind and willingness to re-experiment. Both points, of course, involve time, facilities for research and a laboratory setting in which to apply the findings—all important if changing concepts in remediation are to be *truly* implemented.

312.



# 10. Clinical Evaluation to Determine the Needs of Children

BYRON CALLAWAY
University of Georgia

CLINICAL EVALUATION is concerned with locating the specific reading needs of the child. It is more specifically aimed at pinpointing areas of weaknesses and strengths within the reader and with the determination of appropriate corrective measures to be used. During the evaluation the level of the reading handicap is determined. If the child is not reading up to his potential level, the clinic personnel will attempt to locate the limiting factors and ascertain the degree to which these are contributing to the handicap. During the diagnosis they will be concerned not only with the causal factors but also with the negative aspects that have resulted from the reading difficulty.

The entire diagnosis will be concerned with finding results that will contribute pertinent information to be used in suggesting effective corrective work for the child. The recommendations that are developed from the diagnosis should give specific directions for corrective work, including alternate possibilities.

Clinical work is justified to the degree that it contributes to effective remedial instruction and improved classroom teaching.

## Reading Ability

In determining the specific needs of the child, it is essential that a valid detailed evaluation be made of his reading ability. To obtain more complete information a battery of instruments, both standard and informal, should be used. Each type will have advantages and each will furnish information that the other cannot as easily provide.

A standardized reading test can be administered to help evaluate major areas of difficulty. In general, these tests give a reading level in vocabulary, comprehension, speed of comprehension, and a total reading grade. This type of test will tend to overgrade the child who is handicapped in reading at least one year, indicating that his score should be lowered for a more accurate estimate of reading ability.

A standardized diagnostic test based on indicated individual needs can be administered to aid in pinpointing specific difficulties. Tests such as the Bond-Clymer-Hoyt Silent Reading Diagnostic Tests, the Spache Diagnostic Reading Scales, or the Durrell Analysis of Reading Difficulty will meet these needs. Depending on the age of the child, the child's needs, and the time available, the complete test may be administered or only parts of the test that meet certain needs may be used.

Frequently, there is a need for using standardized oral reading tests such as the Gray Oral Reading Test or the Gilmore Oral Reading Test. Two of the three diagnostic tests noted in the preceding paragraph evaluate oral reading; however, these two are more comprehensive.

Informal methods give very valuable information concerning the reading needs of children. The informal reading inventory is one of the most frequently used methods for evaluating the reading level of children. Selections for the inventory are taken from graded materials; generally these are taken from a series of basal readers. The child is required to do both silent and oral reading. Following the silent reading an evaluation of the various comprehension skills is made to determine the highest level at which there is adequate understanding. The oral reading situation provides an opportunity to determine some of the word recognition difficulties, to observe faulty reading habits, and to look for indications of tension.

Nonsense words are frequently used as an aid to determine skills needed in word discrimination. This approach will

978.

aid in pinpointing specific instructional needs: specfic initial consonants, blends, the phonic principles, or a total program. The use of nonsense words is based on the premise that if actual words are used it is impossible to determine whether the child has the word in his sight vocabulary or if he has skills needed to unlock the word.

There are advantages to having the various tests administered by several clinicians. There can be differences in rapport with children that might result in bias. Some clinicians are more skilled in observation than others. Throughout the complete clinical diagnosis, the skilled clinician is constantly observing the child. While much of this observation may appear to be casual it results in specific information to aid in understanding the child and in making appropriate recommendations for corrective work.

The instructional level is determined by the results obtained from the standardized and informal techniques and by a concensus of the clinicians who have been involved in the diagnosis. Recommendations for instruction in word recognition, comprehension, and any other specific skills are determined in the same manner.

## Capacity

To determine the needs of the child it is obvious that his achievement should be related to capacity. His capacity is evaluated by using an individual intelligence test, the Revised Stanford-Binet Scale, or the Wechsler Intelligence Scale for Children being used most frequently with normal children. An initial concern would be the size of discrepancy found between his ability level and his present achievement. The achievement level should at least approach his capacity level if he has had the opportunity to learn and has been in school for three or more years. Evaluation should be concerned with areas that indicate either strengths or weaknesses. For example, comparative low scores on verbal tasks could point up a child's specific needs.

Continuous observation of the child during the diagnosis can furnish additional information concerning capacity. This information should be taken into consideration during the evaluation. Recommendations should be made in light of the results of capacity measures.

## Background Information

Information concerning the background of the child, including both home and school records, can furnish valuable information. Much of this material is obtained by having the home and the school complete selected forms. Additional material will result from interviews with one or both parents and from interviews with school personnel having contact with, or information concerning, the child. The subjective nature of this information does not make it valueless, but simply requires the clinicians to consider this fact in evaluation.

The school should furnish information concerning the date and age of entrance, including nursery school and kindergarten experiences, and a record of advancement through school. Included should be retentions, and any reasons for them; different schools attended; special abilities and handicaps. A complete record of grades, absences for each year, and reading materials used with the child would be helpful. Complete results from all standardized tests administered should be listed as well as reports from previous referrals or special help.

The school form should indicate the level of instruction, the materials being used for instruction, and specify methods being used. The clinic needs to be aware of special methods that could possibly handicap the child as well as areas that have been neglected in classroom teaching.

Opportunity should always be provided for teachers and administrators to comment concerning the child.

The form completed by parents should contain general information concerning family background, marital status, and siblings. As much information as possible concerning the developmental record of the child should be furnished and the source of this information indicated.

A record of the child's illnesses should be obtained with comments concerning any aspect that appeared to be more severe than normal. These could be concern for sustained high fever, severe in-

979.

juries especially to the head, abnormal birth, and long absences from school.

The parental information should be supplemented with the parent interview. During this interview the skilled clinicians should obtain not only specific information but also impressions of the interrelationships of the family. An interview with the child extends and substantiates the above data.

### Physical Factors

The clinic should use screening tests to evaluate visual and auditory efficiency. If practical, the child failing either of these tests should be re-checked by the clinic later the same day or the following day. If the child fails the visual test the second time, he should be referred to a visual specialist by his parents. The hard of hearing child should be referred to a hearing clinic.

The Snellen Chart is still used all too frequently for visual screening. Although its limitations have been noted for years, it is often the only measure used by many schools. Some of the tests that are considered more efficient are: The Keystone Visual Survey Telebinocular, The Ortho-Rater, The Eames Eye Test, and The Massachusetts Vision Test. An informal survey on vision can provide additional information. It can aid in locating children who have adequate visual capacity but whose eyes tire or become easily irritated.

The clinicians should note any tendency for speech difficulties on the part of the child. All children with speech problems should be referred to a speech clinic or speech therapist, depending on the school organization.

Although the parent forms have spaces for reporting physical deficiencies or illness, these might not be reported or the parent might not be aware of the difficulty. Glandular disturbances, poor general health, or any of a number of physical handicaps could contribute to the reading problem. In cases where it is indicated that physical factors might be involved, it should be recommended that the child have a complete physical examination. In this type of referral, it is well to ask the parents to have the doctor send a report to the clinic.

### Emotional Factors

Many children with reading problems also have emotional problems. During the interview, the clinician may obtain indications of emotional tension. Observation throughout the diagnosis frequently gives additional information concerning pressure. From the parent interview there may be indications of pressure or emotional problems.

The present "personality" type tests are of limited value. The child may "fake" these tests to please the clinician or to direct the results in the direction he thinks is most desirable. If there are suspected emotional factors, the child should be scheduled for evaluation by a psychologist.

Pressure from the home, the school, or the peer group will frequently be a factor. The school practice of teaching the child several levels above where he can succeed will contribute to emotional problems. Unreasonable assignments requiring several hours of homework not only intensify the problem but create a dislike for reading.

### Other Areas

Arithmetic is evaluated to determine how the child functions in an area requiring a minimum amount of reading. This comparison is especially true when his success in only the fundamentals is evaluated. Spelling and work-study tests indicate success and/or needs in related areas. Listening tests can furnish other valuable information. The results gained from such tests are sometimes considered an indication of possible reading capacity.

Facilities for evaluating, or referral agencies, are necessary in work with children with suspected neurological limitations.

The clinic, ideally, would be able to refer the child to different agencies and to obtain from them information relative to the problem.

Types of specialists and agencies that are needed in this cooperative enterprise are Speech and Hearing Clinics, Psychological Clinics (if reading is not a part of a Psychological Clinic), visual specialists, Family Relations Agencies, Child Welfare agencies, psychiatrist, medical



clinics, and probably others for special cases.

The cooperation of all the agencies needed, the pooling of information and knowledge, and the joint cooperation in correction would probably create a higher degree of success and give greater amounts of pertinent information. However, most clinics will of necessity be limited to having the services of only one or two of these agencies.

### Summary

A reading clinic attempts to gather as much pertinent information concerning the child as is feasible. This information is supplemented by evaluating the reading skills and related areas that contribute to successful reading experience. The clinic's aim is to gather as much valid material as possible that contributes to the understanding of the child and his problem. Ideally, only material that will contribute to this understanding is gathered.

This information is then used for recommendations to aid in understanding the child and his difficulty and to give directions for corrective work.

980.

313.

Vol. 9, 64

# 3. How They Learn and Why They Fail

JEANNE CHALL

THE CAUSES of reading failure have been pursued from many different vantage points. During the 1950's the prevailing view on causation was the possibility of multiplicity of causes—personal and environmental—any one or a combination of which could be significant in the failure of a particular child. Recently, however, there has been a renewed interest in the importance of a beginning reading method. Thus many phonic proponents and, more recently, linguistic scientists have claimed that the heavy emphasis on a sight (meaning) approach rather than on a phonic (phoneme-grapheme correspondence) approach in the initial stages of learning to read is to blame for the current crop of failures.

To gain some insight into this claim, an analysis of six reports of children who failed, published between 1922 and 1946, was undertaken.[1] The six are the well-known reports of reading disability cases by Gray (1922), Gates (1922), Monroe (1932), Orton (1937), Fernald (1943), and Robinson (1946), veritable classics in the field.

Since the reading disability cases upon which these studies were based received their initial reading instruction at times when different emphases were practiced generally, it was believed that something could be learned about the validity of the recent claims regarding the importance of beginning reading methods in the etiology of failure.

Gray (1922) and Gates (1922) published their studies at a time when according to Nila Smith (1963) phonics was being abandoned as a beginning reading emphasis—1920 to 1935. However, since it takes at least a year or two to write up a study, and the children received their before, we can infer that most of them

[1]Acknowledgment is given to Marion Klein for her aid in analyzing the six books.



initial reading instruction several years received their initial reading instruction at a time when phonics was emphasized—1890 to 1920. The children studied by Monroe (1932), Orton (1937), and Fernald (1943) probably received their initial instruction during a heavy sight (meaning) emphasis. Helen Robinson's (1946) cases probably learned during a period of renewed interest in phonics as a supplement to a sight (meaning) emphasis.

An analysis of the six reports led to the following generalizations. They are not final conclusions but should instead be considered hypotheses deserving further study today.

1. Each emphasis, whether heavy phonic or heavy sight, appeared to produce failures.

2. Regardless of the particular emphasis to which the poor readers were initially exposed, they had difficulty with word recognition and analysis (phonics), the very weakness that phonic proponents attribute only to a strong sight (meaning) emphasis.

Whether a particular emphasis produced a greater number of reading failures cannot be determined from these reports for the investigators did not indicate what percentage of the total population of beginners their particular group of reading failures represented. Nor did they indicate specifically which children among their failures had been initially instructed under which emphasis. The descriptions of cases in most of the reports indicate that some children had been taught initially by an emphasis different from the prevailing one.

3. When the investigator described the remedial reading procedures used to retrain his cases, it was found that some form of word analysis or phonics was part of the remedial program, whether or not it was called by these particular names. It would appear that the more severe the disability, the more it was necessary to call in motor (tracing, writing), speech (sounding and blending), and auditory aids to word recognition and analysis.

4. All investigators reported general success with their remedial procedures and noted that once a good inroad was made into overcoming the hurdle of word rec-



ognition and analysis, the poor reader proceeded in a manner similar to the non-failing child—grouping his words in phrases and attending more to content than to mechanics.

5. With regard to where the fault lies, whether in the initial approach, or in the deficiencies of the child, it appears that there is an interaction effect between the two. Severe reading disability seems to require both—a predisposition in the child and an initial approach that ignores it. Since most reading disability children appear to suffer from difficulties in associating spoken words with their written equivalents, and they benefit from retraining that focuses attention on this association, it would appear that initial methods emphasizing this aspect of reading—and paced to the learner's ability—should produce the fewest failures.

## BIBLIOGRAPHY

Fernald, Grace, M. *Remedial Techniques in Basic School Subjects.* New York: McGraw-Hill, 1943.

Gates, Arthur I. *The Psychology of Reading and Spelling with Special Reference to Disability.* New York: Teachers College, Columbia University, 1922.

Gray, William S. *Remedial Cases in Reading: Their Diagnosis and Treatment.* Chicago: University of Chicago Press, 1922.

Monroe, Marion. *Children Who Cannot Read.* Chicago: University of Chicago Press, 1932.

Orton, Samuel T. *Reading, Writing and Speech Problems in Children.* New York: W. W. Norton and Co., 1937.

Robinson, Helen M. *Why Pupils Fail in Reading.* Chicago: University of Chicago Press, 1946.

Smith, Nila B. *Historical Research on Phonics and Word Method in America* (Mimeographed). New York University, 1963.

981.

314.

Vol. 9, 64

# SEQUENCE VII
# CLINICAL ASPECTS OF READING

## A. ELEMENTARY SCHOOL

### 1. Identifying and Diagnosing the Retarded Reader

STELLA M. COHN

WHO IS the Retarded Reader?

In the *Handbook of the Special Reading Services*,[1] we define retarded readers as "those children for whom learning to read presents marked difficulty in spite of being equipped by chronological age and general intelligence to benefit normally from instruction. They are members of all kinds of families. Some of their parents are illiterate; some speak only a very little English; but others are widely read and some are college graduates."

#### Identifying the Retarded Reader

In the annual report of the Special Reading Services 1956-1957 we drew a profile of a typical reading disability child. This profile was based on the summarization of 35 case studies which were analyzed in detail. This child would be male, nine years old, and in the fourth grade. He would have at least average intelligence—usually above average intelligence—and probably would be doing nearly as poorly in arithmetic as in reading. In the classroom he would appear to suffer from severe anxiety, hyperactivity, depressive trends, and fearfulness. He would usually have periods of excessive day dreaming and distractibility. These symptoms occurred in two-thirds of our children. In his early school history we probably find an absence of kindergarten experience, a chronological age of below six years on entering first grade and various unfortunate early school experiences such as frequent changes of school or teachers, serious illnesses, and excessive absences.

#### Guide Posts in the Diagnostic Procedure

No reading disability is the result of a single factor. Many retarded readers reveal a multiplicity of causes, any one or several in combination might be a contributory factor to the reading problem. Frequently these causative factors react upon each other and compound the problem. *Diagnosis should include all aspects of the pupil and his reading act: physical factors, intellectual factors, personality factors, environmental and educational factors.*

*The Physical Factors*

Physical factors, although sometimes insignificant in nature, may affect the pupil and his learning ability. Any discomfort will reduce the child's effectiveness in the classroom situation. Some major physical factors are defective vision, speech and hearing, glandular imbalance and neurological problems.

There is another group of children who manifest problems in dominance or have directional confusion. Either of these difficulties frequently may interfere with learning to read.

*The Intellectual Factor*

There seems to be some disagreement in recent years on the use of the intelligence tests. Some authors have expressed disfavor in comparing intelligence and reading achievement. They argue that many group intelligence tests and some individual tests are measures of specific reading abilities. In fact, it is stated[2, 3]

[1] *Handbook of the Special Reading Services* of the New York City Board of Education, September 1964, Stella M. Cohn, Director.

[2] G. L. Bond and L. C. Fay. "A Comparison of the Performance of Good and Poor Readers on the Individual Items of the Standard-Binet Scale. Forms L and M," *Journal of Educational Research*, 43 (February 1950), pp. 475-79.

[3] G. D. Spache. "Estimating Reading Capacity," *Evaluation in Reading*, Helen M. Robinson, editor, Supplementary Educational Monographs, No. 88. Chicago: University of Chicago Press, 1958, pp. 15-20.



982

that these tests penalize poor readers and significantly underestimate their probable mental ability.

*The Personality Factor*

Diagnosis of personality factors is often complicated by the fact that good readers do exhibit some of the same problems of adjustment as do the disabled readers.

A diagnosis must include an assessment of the pupil in his relationship with his teachers, with his classmates and with members of his family. Many sensitive teachers have learned to look behind the child's behavior.

*Environmental Factors*

In order to obtain a complete picture of the child it is important that parental attitudes be studied. Many home environments influence a child's reading behavior. Helen Robinson[4] reports that 54.5 per cent of the retarded readers she worked with came from maladjusted homes. It is also important to know the parental attitudes towards a pupil's reading disability.

In order to evaluate these environmental influences the reading specialist will observe the child, note how he is accepted by his peers and how he relates to his classmates.

*Educational Factors*

Poor teaching, an unhealthy emotional climate in the classroom, unsuitable materials of instruction, and inadequately prepared teachers are among the factors that may cause a reading difficulty. Excessive pupil absence may be another causative factor. In New York City today a very serious problem confronting the school personnel is the high incidence of pupil mobility. Other factors are staff shortage and turnover.

## Diagnosis Must Be Continuous and Should Include Plans to Improve the Reading Act

In providing a program of correction the specialist needs to re-evaluate the diagnosis continuously. For those children who are making progress, it is necessary to provide further diagnosis so that old needs are met and new needs are recognized and provided for. For those children who do not appear to be undergoing any perceptible changes, it may be necessary to use additional measurements or supplementary appraisals and evaluative techniques. In addition, there should be a program of corrective procedures.

## Diagnosis Must Include Informal Procedures as Well as Standardized Tests

In making a diagnosis, regardless of what environmental, educational, behavioral, or physical problems brought the reading difficulty about, it is essential to study the reading disability and proceed to correct it. This may be done by informal as well as formal procedures. In using the informal approaches, the examiner should proceed as systematically as possible.

A careful analysis of the child's reading disability not only determines its nature, but should also point up the specific weaknesses in skills. This analysis should also include the instructional plans for overcoming weaknesses found.

In concluding I would like to quote from the *Handbook of the Special Reading Services:*[5]

> Not to be overlooked are the positive elements which seem never to be completely lacking in a child's situation—no matter how deprived his life has been. It is most important to find out, from the child's record of experiences, at school and at home, evidences of positive interests or aptitudes which can be utilized constructively by both teacher and parent to motivate behavior which will build up the child's self-image. Often the educationally defeated child, once he is stimulated to make the effort to create or achieve something in line with a positive interest of his own, encouraged by teacher and accepted by the parents, looks at himself with new confidence and at this point begins to learn.

[4]Helen M. Robinson, *Why Pupils Fail in Reading.* Chicago: University of Chicago Press, 1946, p. 222.

[5]*Ibid.*

983.

315.

Vol. 10, 65

# 3. An Adaptation of the Fernald-Keller Approach to Teaching Non-Readers

J. LOUIS COOPER
University of Connecticut

OVER a quarter of a century ago Grace M. Fernald and Helen B. Keller developed a method of teaching non-readers who fail to learn through more conventional procedures.[1] Fundamentally, the Fernald-Keller method is a variation of the experience approach in which visual, auditory, kinaesthetic, and tactile modes of learning are emphasized. This method is sometimes referred to as the VAKT or Visual-Motor approach. It consists of four stages: (1) In Stage 1 the child traces with his fingertips words which he wishes to use but does not know how to write. Visual, auditory, kinaesthetic, and tactile (VAKT) modes of learning are used. (2) In Stage 2 tracing is eliminated (VAK). The child learns a word by watching the teacher write it, by saying it, and then writing it without looking at the copy. (3) Stage 3 has been reached when the child can write the word after looking at the printed form of it and being told what it says (VAK). (4) Stage 4 has been achieved when it is no longer necessary for the child to write the word in order to remember it (VA). In Stage 4 the child becomes able to work out strange words for himself through visual analysis of familiar structural parts and context. No phonetic analysis is taught in Fernald's procedures.

Although the original Fernald approach has certain merits, the writer is of the opinion that it incorporates certain unnecessary shortcomings. The purpose of this paper is to present an adaptation which attempts to eliminate most of the less desirable features while retaining the more desirable ones.[2]

## The Adaptation

The major differences in the original Fernald method and the adaptation suggested here are: (1) the method of determining the words to be taught, (2) introducing book reading at the very outset of instruction, i.e., in Stage 1, (3) paralleling the early Fernald stages with intensive training in visual and auditory discrimination, and (4) gradually replacing the Fernald stages with a systematic program of word analysis.

[1]Grace M. Fernald. *Remedial Techniques in Basic School Subjects.* New York: McGraw-Hill Book Co., Inc., 1943.

[2]For a more detailed description of this adaptation, see: J. Louis Cooper, "An Adaptation of the Fernald-Keller Approach to Teaching an Initial Reading Vocabulary to Children with Severe Reading Disabilities." Mimeographed bulletin. Storrs, Connecticut: The Reading-Study Center, University of Conn.

984.

*Identification of the vocabulary to be taught.* It should be noted that in Fernald's method the child is encouraged to learn words he wishes to use but does not know how to write. In the adaptation of the method the teacher is responsible for determining the words to be taught. These will be unknown words from the first books the child will use in his remedial work. To accomplish this the teacher selects a series of basal readers to be used for instructional purposes. Assuming that the child is a non-reader, his recognition of the total vocabulary of the first preprimer is checked and a list made of those words he does not know. These become the words to be taught as he reads this book. Obviously, if the child knows all of the words in this first book, proceed with the second book in the same manner.

Once the unknown words have been identified, they are taught in the order in which they are introduced in the book, using the appropriate stage of the Fernald method (usually Stage 1 at the outset). As the words are learned, the child is asked to read directly from the book, thereby encountering the words in a true contextual setting rather than in a sentence of "story" which he has written. If only a few words in a book are not known, all may be taught and the entire book may then be read at one time. On the other hand, if there are many unknown words, they may be taught a few at a time and the book read in segments as the words are learned. Much additional practice on these words is provided, both in context and in isolation through the use of word games, tachistoscopic drill, and the like.

Although the content of preprimers will hold little or no interest for children who are beyond seven or eight years of age, this approach is a quick and sure way to have the child read something on his own. In this connection, it is of extreme importance to have children who have experienced failure read immediately from a book, even though that book may be a preprimer or primer. This initial success will tend to offset the lack of interesting content.

Since in the original method the child reads his own story, no thinking takes place because he already knows what the story says. Yet reading should be approached always from the standpoint of extracting meaning from the printed page. This can only be done when the child reads what someone else has written; that is, he must not know what the material says prior to reading it.

In short, the adaptation suggested here is a much quicker way of getting the non-reading child to the point where he can read what someone other than himself has written than is the original method. Moreover, the reading will be a thought-getting process, even though on a very rudimentary level. The modification, however, still makes uses of the four stages set forth by Fernald.

*Visual and auditory discrimination training.* Another suggested major deviation from the Fernald procedure is that intensive training in both visual and auditory discrimination be provided while the child is acquiring the initial sight vocabulary through the application of the tracing and writing stages.

Advocates of the Fernald approach claim that non-readers for whom the method is appropriate have been unable to profit from the word analysis instruction in conventional programs. Hence it has been assumed that they could never profit from such training. This failure might well have been due to deficiencies in visual and auditory discrimination, particularly the latter. By strengthening these abilities while children are acquiring the first reading vocabulary through the four stages mentioned above, there is evidence to indicate that they can subsequently profit from a program of word analysis training.

*A systematic program of word analysis.* A final major difference in the two approaches is that in the original one word analysis skills are never taught in a formal sense of the word. It is assumed that by merely taking the child through the four stages he gradually acquires an ability to analyze words through visual analysis of familiar structural parts and context. While this might be true in time, it is indeed a slow process. In the present adaptation, a systematic program for teaching the word analysis skills (i.e., both phonetic and structural analysis) is introduced at some point in the sequence of the four stages, the point at which it is introduced depending on the child's progress in visual and auditory discrimination. As the word analysis skills are mastered, they gradually replace the Fernald stages as the primary means of acquiring new reading vocabulary.

In summary, it is held that it may be desirable, even necessary, to resort to VAKT as a means of helping certain non-readers acquire an initial reading vocabulary. However, through use of the adaptation of this technique recommended here the child will change his mode of learning words from VAKT to VAK to VA and all of these modalities eventually will be replaced by the application of word analysis skills as a means of acquiring new reading vocabulary, just as word analysis skills replace the more conventional whole-word or sight method (VA) generally used with beginning first graders.

316.



# PART II SEQUENCES

## SEQUENCE I
## DEVELOPMENTAL READING SKILLS

### A. PRIMARY LEVEL

### 1. Developmental Tasks in Reading

ISABEL CRAIG
Indiana University

ROBERT J. HAVIGHURST in his book *Human Development and Education* defines a developmental task as follows:

> A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks.[1]

#### The Problem

It is easy to think of the task of learning to walk in terms of this definition. We know that there must be physical growth, intellectual development, opportunity to learn, and desire to achieve before a child will learn to walk. It is also possible to think of the task of learning to read in terms of this definition.

Sometime between the ages of five and a half and six and a half the children in our country enter the first grade of school. Their major task is to learn how to read. Success certainly leads to happiness and future school achievement. Failure certainly leads to unhappiness and, for the youngster, disapproval by society and continuing difficulty in school achievement.

Inherent in the concept of a developmental task is that at the time the task is presented the individual has matured in such fashion that a successful response to the opportunity to learn can be expected. In our public schools admission to the first grade is based upon chronological age with the implied assumption that the maturity necessary for successful response to learning to read will have *occurred*. However, first grade teachers find from five to fifteen per cent of their pupils immature and unable to respond to beginning reading instruction. The teacher's clues for identification of these children come from several sources. Intelligence test scores, readiness test scores, and observed behavior are the most common means of identification. These identification procedures are valuable in locating the children whose limited development lies in the areas of general intelligence, language development, visual discrimination, and social adjustment. However, these procedures fail to give diagnostic information concerning the problem of the youngsters who fail to respond to initial reading instruction even though their intelligence test scores and level of language development are evaluated as being in the normal range. Lack of information as to the precise areas of poor development in these children makes it impossible to adjust instruction to their needs.

#### An Experimental Approach to the Problem

Educators, medical doctors, and psychologists have been increasingly concerned with this diagnostic problem. There is much reported research from the three disciplines in which tasks have been designed to explore the functioning of these children in such a way that precise areas of poor development can be discovered. Fruitful as the results of such research may be, they remain buried in many different journals and are not readily available to classroom teachers. It was for this reason that in 1963 and 1964 a pilot study was designed and conducted with first

[1]Robert J. Havighurst. *Human Development and Education*. New York: Longmans, Green and Co., 1953, p. 2.



986

grade children in the Bloomington Public Schools.

A test battery was constructed consisting of twenty-two tasks chosen from reported research and considered to be most promising in identifying specific areas of poor development in children with normal intelligence and adequate language, but who failed to respond in the expected manner to initial reading instruction.

This test battery was administered to fifty-six first grade children in the spring of 1963. The children were paired and matched according to the following criteria: same sex; no more than six months difference in age; enrolled in the same first grade classroom; no score lower than 8 and no more than 3 points difference on the scaled score of the WISC vocabulary subtest. One child of each pair, coded as belonging to the *X* group, was judged by the teacher to be making good progress in reading and had scored on the reading subtest of the Wide Range Achievement Test no lower than 15 points. The other child of a pair coded as belonging to the *Y* group was judged by the teacher to be making poor progress in reading and had scored less than 13 points on the reading subtest of the Wide Range Achievement Test.

The twenty-two tasks included in the experimental battery sampled performance in the areas of visual perception, auditory perception, visual motor coordination, spatial orientation, tactile memory, and general information such as time concepts.

Of the twenty-two tasks administered in the spring of 1963 the scores earned by the *X* and *Y* groups on fifteen of the tasks were found to be statistically significantly different. Thus in the spring of 1964 these fifteen tasks were re-administered to forty-six of the fifty-six children still living in Bloomington. No special training had been given to any of these children during the intervening school year. An analysis of the data on the follow-up study indicated that a significant difference between the *X* and *Y* groups still existed on six of the fifteen tasks.

In addition to the comparison of the performance between the *X* and *Y* groups, profiles were plotted for each child in the *Y* group which compared his task performance with the mean scores of the *X* group. These profiles revealed specific areas of poor development and varied from child to child.

## The Implications

The results of this study indicate that the construction and use of a diagnostic test battery such as described here can give precise information concerning the areas of poor development in children who are not making expected progress in reading. More work needs to be done in developing such a test battery. Reliability and validity need to be established. The tasks used in the study could all be administered by a classroom teacher—an important consideration if the instrument is to be useful. It is significant to note that while all the children in the *Y* group had problems in the areas of functioning sampled by the tasks they did not all have the *same* areas of deficiency.

The next important matter for consideration is planning effective instruction based on the diagnostic findings. At the present time practice material is available in such areas as visual perception, auditory perception, and visual-motor coordination. However, sequential use of this material as related to developmental factors remains to be accomplished.

When we have diagnostic tools which reveal precise areas of poor development, we shall be able to plan effective instruction based on our findings.

987.

317.

ties. Jack and Billy[1] were referred to our Reading Center from different schools, but both had similar educational histories and both had experienced particular problems in relation to language development —especially reading.

We have been working with Jack for almost two years. Billy has been under our instruction almost continuously since last September. Both have positively diagnosed brain damage, and both present many overt symptoms of the brain-injured child: nervousness, hyperactivity, restlessness, limited attention span and poor retention. Both boys reveal an asymmetry of skull and face, and both have a marked flatness or depression near the back of their heads. This does not mean that all brain-damaged children have funny-shaped heads, nor that everyone with a funny-shaped head is brain-injured.

### The Case of Jack

Jack was ten years old on February 25, 1961. He was eight when first seen at the Reading Center on July 17, 1959, at which time he had been assigned to the second grade after two years in the first. He lives with his parents in a comfortable, middle-class suburban home. He has a sister, 16, in the eleventh grade; a brother, 12, in the sixth, and a younger sister, three years old. Jack's father is an executive and both parents attended college.

They were aware of his difficulty in reading as early as the first grade, but felt that Jack was a "slow starter" like his brother. They hoped and expected that by repeating grade one he would be able to proceed without difficulty. His mother noted that he tried to memorize pages, that he reversed some letters and words, that he had difficulty with certain beginning consonant sounds (*g*, *j*, and *h*), and that he missed easy words such as *and* and *the*.

Jack's second first-grade teacher reported that his general attitude toward school was good. He tried very hard to read in an effort to please her, but at times would give up after repeated failure and assume an attitude of indifference toward reading. She felt that this pose was not genuine, but a defense mechanism against frustra-

[1]Pseudonyms

**b. Brain-Injured Children Learn to Read**

102.

WARREN G. CUTTS

Each new advance in medical science has increased the likelihood that handicapped children will survive to adulthood. Whether such youngsters will become a drain upon or creative contributors to society's resources will be determined in large measure by the extent to which educators are able to adapt instruction to their individual needs. Simultaneously, they confront teachers with both a tremendous challenge and a great opportunity for unique service.

Of all the handicapped children, there are none more challenging than those who present evidences of brain injury or severe neurological impairment. We are concerned in this paper with two such youngsters and the efforts that are being made to overcome their reading difficul-

988.

tion and failure. In oral reading, he would often begin a sentence correctly but make up an ending when he was unable to read a particular word. His attention span was quite short, and he was easily distracted. He experienced difficulty with penmanship, although writing was regarded as one of his better subjects.

Despite a favorable developmental history as related by his parents, one of the first characteristics one observes about Jack is the marked asymmetry of his head and face. His skull seems to be somewhat misshapen, and there is a noticeable difference in the size of his eyes. On the other hand, he disclosed a high energy level, sufficient for sustained attention and interest throughout the testing program. He is also very friendly and cooperative.

Jack was examined by means of the Keystone Visual Survey Tests. These telebinocular tests disclosed difficulty in stereopsis and limited visual acuity in his right eye at near point, indicating a need for further, more intensive examination by an eye specialist. When tested with an audiometer, Jack's auditory acuity was found to be satisfactory at all frequencies.

One of our routine examinations involves an evaluation of each child's mental health. For younger children, this is more difficult and less accurate since we rely primarily upon the *California Test of Personality* at the lower age levels. This is a comparatively crude screening device and does not lead to any depth of insight into more subtle adjustment problems. We do feel, however, that our rather unique approach to mental health evaluation is much more fruitful than that usually followed by reading clinics and diagnosticians. We have both parents, as well as the child, complete the same questionnaire, responding to each question just as they think he would answer it but without conferring with him or with each other.

Within the limitations of this one instrument, it appeared that Jack was a reasonably well-adjusted child. It did not appear that he had yet developed any marked feelings of inadequacy in spite of the fact that he was not doing well in school. This would seem to be a credit both to his home and to the school, in that Jack has not been made to feel bad about repeating first grade and about his generally poor academic achievement. We felt that it was particularly fortunate that his difficulty in reading was being diagnosed while he was still in the early grades, so that corrective measures might be taken before academic failure resulted in the establishment of a vicious circle in relation to reading and mental ill-health.

Despite the rather favorable picture presented by the *California Test of Personality*, we soon learned in our work with Jack that he was an extremely insecure individual—rather emotionally unstable and prone to cry very easily. This tendency made it necessary for us to employ great care and patience in working with him and accentuated the need for bolstering his sense of personal worth and achievement. It should be remembered that it was only within the area of reading that Jack seemed to experience any particular feelings of inadequacy.

We measured his intelligence by means of the *Wechsler Intelligence Scale* for children and the *California Test of Mental Maturity*. The CTMM was administered as an individual test with all items in the language section being read aloud to him. His over-all intelligence grade placement on this test was 3.6, his total IQ being 105. Jack's performance on the WISC was quite close to his performance on the CTMM, although somewhat lower. On the full scale he obtained an IQ of 99, while on the verbal and performance scales his IQ's were 101 and 97, respectively.

This comparatively even distribution of mental abilities fails to disclose the wide disparities that occurred between the subtests within each of these major areas. Jack's scaled score on comprehension was 14; on vocabulary, 13; and on picture completion, 15. On arithmetic coding and digit spans, however, his scaled scores were only six. These extremes range all the way from mental defective to very superior. While minor fluctuations from test to test are very common on the WISC, deviations as great as these are not characteristic of a normal individual and are sometimes associated with brain injury.

We also examined Jack by means of the *Durrell Analysis of Reading Difficulty*, the *California Reading Test* (Primary, Form AA), the *Lee-Clark Reading Readi-*

[illegible] the *Betts Word Recognition Test*, [illegible] an informal reading inventory. His recognition of isolated words from a pre-primer to first grade level was checked on his untimed exposure to words within the *Betts Word Recognition Test*. He could read 73 per cent of the words at the pre-primer level, only 30 per cent at the primer level, and none at the first reader level.

On the *Durrell Analysis*, we found Jack's oral reading level to be below first grade, with poor comprehension. He was unable to read at all silently, but his listening comprehension was at a third grade level. On both word recognition (flashed words) and on word analysis, he scored below a first grade level. His visual memory of words rated at low first, as did his ability to hear sounds in words. His learning rate was found to be very poor. On the learning rate test, he was able after a 20-minute period to recall only two words, *motor* and *barrel*. He repeatedly confused the words *wait* and *stain* and could not remember the word *decorate*.

### Perceptual Difficulties

We can see that Jack is a child of at least average intelligence, who up to the time of his diagnostic tests had been unable to profit from regular classroom reading instruction, making only slight progress in reading even after repeating first grade. Results of the telebinocular tests and observation of his reading performance (especially his specific reversal of letters and his poor perceptual ability) indicated the possibility of a visual problem, if not brain injury.

We felt that the first step in helping Jack to become a better reader should be an intensive examination by an eye specialist. This examination resulted in new glasses and a series of visual training exercises for Jack. There seems to be little doubt that he has some type of visual problem, but he has profited only slightly from the refractive lenses and extensive visual training provided for him. We felt, on the basis of our diagnostic work, that there were rather definite indications of brain injury. This problem was discussed with Jack's parents in a series of conferences, and they were helped to face the possibility that their son was brain-injured.

Our psychologist concluded from the *Bender Visual-Motor Gestalt Test* that Jack showed definite symptoms of a mild sensory aphasia, which particularly handicapped him in perceiving and drawing designs involving irregular angles and overlapping diamond-shaped figures. When asked to print simple words dictated by the examiner, he manifested considerably more deviation from normal; he experienced marked difficulty in printing the different letters and persisted in linking words together. He did not seem to be handicapped in reproducing figures which involved more or less a "one motor set," as do most of the *Bender Gestalt* figures, but he was greatly handicapped in producing designs or letters which involved a variety of "motor sets." On the basis of this finding, it was decided that he was handicapped by a brain injury which caused him to perseverate in visual-motor tasks.

We felt that Jack's greatest needs in reading were to enlarge his basic sight vocabulary, to strengthen his visual discrimination ability, to improve his visual memory of words, and to experience some success and pleasure in reading. In an effort to meet all of these needs, it was decided that an experience story approach should be used, with emphasis on the Fernald-Keller Procedure.

During most of the first year of our work with Jack, our reading therapist met with him for at least an hour each morning during the school week. This year, we have reduced his instructional sessions to three per week, and he has been meeting with our clinician early in the afternoon on Monday, Wednesday and Friday.

Throughout the first year, we found it necessary to utilize primarily a game approach in order to maintain Jack's interest and full cooperation. In this connection, his teacher and I modified various teaching aids and devices and invented several new ones. It was absolutely essential to keep Jack physically involved in order to hold his attention and to reinforce his retention.

Although he is still unable to work independently above a second grade level, his improvement has been outstanding in view of his learning difficulties and his very limited progress the first year with us. That year would have to be regarded

primarly as a period of readiness development—especially psychological readiness—in view of the time devoted to play therapy and motivation. Jack is presently responding to reading instruction on a low-third grade level. He has learned the thrill of independent reading and is enjoying the easier books of the American Adventure, the Jim Forest and the Deep-Sea Adventure series. This major breakthrough has occurred during the past month, and we are expecting a continuation of the current rapid-improvement phase of Jack's program.

### The Case of Billy

Billy was nine years old on October 14, 1960. He was first seen at our clinic on July 12, 1960, at which time he had been assigned to the third grade, having already repeated grade one. Billy's attitude toward school was antagonistic and uncooperative.

He had undergone speech therapy at school, but he still substituted *th* for the sound of *s* in his ordinary conversation.

Results of the *California Test of Mental Maturity* placed Billy within the low-average range of intelligence. The WISC rated his over-all IQ at 85. The first confirming symptoms of brain injury were apparent during administration of the WISC; Billy showed his greatest difficulty on tests requiring motor-visual coordination, a problem that carried over into his reading in the form of frequent reversals.

Billy's mental health was obviously not as good as Jack's. He was found to rate extremely low on behavioral maturity, emotional stability and feelings of adequacy; and, both parents concurred with respect to these factors. Billy also seemed to feel mistreated and discriminated against unfairly. An unhealthy rivalry with his younger brother, Jim, was clearly apparent during his conversations with the diagnostician. Jim is just one year younger than Billy and excels him in almost every activity, including sports. Billy feels incompetent and unsuccessful by comparison.

### Instructional Programs Similar

Billy's pattern of errors in reading and his instructional needs were so similar to those already discussed for Jack that they will not be listed here. He, too, was virtually a non-reader, although he managed to score somewhat higher on both sections of the California Reading Test. Throughout most of the reading tests, Billy disclosed low effort and poor attention; he frowned frequently and tended to slump in his chair.

Upon our referral, Billy was examined by Dr. William C. Baird, Akron neurologist. Excerpts from his report, which included an electroencephalogram, are presented below:

> ". . . First of five children . . . Mother states he did not move in womb, as did the others . . . weighed eight pounds and five ounces at birth—a product of four hours of labor and instrument delivery, at which time there was observed to be some moulding of the head . . . walked at 13 months . . . talked at 15 . . . always rather awkward . . . not yet entirely toilet trained . . . accidents have increased during past few weeks, associated with precocious development and even behavior on the part of next younger brother. . . . Upon neurological examination, it is seen that there is a plagiocephaly present, with flattening of the right occipital area of the skull. He is a chubby little fellow who appears awkward for his age in all of the cerebellar and motor tests. . . . From a neurological viewpoint there is evidence of organic brain damage. . . ."

Our work with Billy this year, while differing in some respects because of his particular interests and his less favorable experiential background and environment, has been very similar in its salient features to our first year with Jack. Billy is of a more phlegmatic temperament, and he has a more restricted range of interests. His teachers found it necessary to use an experience approach with frequent application of the kinesthetic technique, in order to stimulate Billy's interest and to improve his retention. Major emphasis has been upon creating a favorable climate for learning and making reading a pleasant, successful experience, the accent being on play therapy.

Reading is still a chore for Billy, and he still requires an excessive measure of extrinsic motivation and stimulation. His present instructional level in reading is low-second, and he cannot read independently above a primer level.

### Meeting the Challenge

Reading instruction for the brain-injured, at least on the basis of our earlier

991

[illegible] must involve continuous [illegible] learning activities with [illegible] opportunity for frequent application of new skills and understandings than is necessary for the normal child. The instructional area should be as free as possible from distracting stimuli. Poor retention is apparently one of the greatest handicaps faced by these children, and they must have many tangible and objective relationships to which they can anchor their new learnings, or else these new concepts and skills will drift away with the moving tides which seem constantly to be flowing through their disturbed minds.

These children present a tremendous challenge—an ever-growing challenge in American education today. The need is great for further studies and clinic investigations which will point the way toward a more adequate meeting of their instructional needs. We have only scratched the surface of a problem area that is admittedly confusing, even to neurologists and scholars who have devoted their lives to a study of the brain and nervous system. Our knowledge is meager; we are uncertain about many aspects of brain injury and its concomitant learning difficulties. Questions are much more abundant than unqualified answers.

Reports concerning the rehabilitation of battle casualties from both World War II and the Korean conflict, however, have brought new encouragement concerning the flexibility and adaptability of the brain —of its mysterious capacity to "reassign" tasks and skills in order to compensate for seemingly damaged cerebral areas. And, a very recent account of apparently total recovery even more dramatically demonstrates the remarkable resiliency of this extremely versatile organ. I am referring to the baffling case of Kemal Yon.

Kemal, a son of a physician and registered nurse, was in old St. Luke's Hospital in Chicago—a victim of acute bronchitis. On the third day, a complete breathing obstruction occurred, despite the hole cut into his windpipe to facilitate breathing. His heart stopped. Everyone, including his father, thought he was gone; but, after seven minutes of heart stoppage, circulation suddenly started slowly once more.

New problems were immediately apparent. Kemal had lost all signs of brain activity; he was unable to hear, to see, to swallow, or react in any observable manner to external stimuli, and he continually showed convulsions, spasticity, fixed eyeballs and other signs that his brain was dead. This unconscious condition lasted 17 days.

But the medical team continued to work with him. Although brain cells have never been known to regenerate, everything was done to preserve the spark of life—to keep it from going out. After 17 days, there was spontaneous movement of the left ankle. Gradually, voluntary movement extended over Kemal's entire body. Finally, he began to show signs of higher brain functions; he recognized his mother; he smiled and cried. He was released from the hospital 16 days later.

Today, Kemal appears to be entirely normal and fully recovered from the strange malady that brought him so close to death more than two years ago. Every test known to medical science indicates that there is no brain damage. His story was told in a recent issue of the journal of the American Medical Association by his father and three other doctors. They are still mystified over what happened to give new life to seemingly destroyed brain cells.

Only one thing is certain: we must never give up; we must continue the search for new and better ways of dealing with all cases of brain injury. We cannot expect such dramatic recovery in most cases; and, as was pointed out earlier, the incidence of brain-damaged children who survive until school age has been steadily increasing with each new advance in medical science.

Schools and reading specialists must be prepared to meet the challenge. With each new step forward in reading research and especially with those studies concerned with the problem of instruction for these specially handicapped children —however limited in scope—the frontier of useful information is further extended, and reading teachers are presented with new tools for dealing with an important instructional problem.

318.

Vol. 10, 1965

# SEQUENCE VIII
# REMEDIAL READING

## A. PRIMARY LEVEL

### 1. Prevention Before Remediation

MILDRED A. DAWSON
Sacramento State College

THE SPEAKER believes that many pupils learn to be poor readers, that bad habits and negative attitudes are learned, that many so-called remedial cases could have been effective and confident readers under a program of preventive teaching. All too many pupils are reading far below their potential, though admittedly certain reading difficulties are caused by conditions beyond the school's control. What is hoped is that school personnel will put more emphasis on realizing pupils' reading potential, less on remedial conditions that might be prevented.

One consideration in a program for preventing reading difficulties is the *timing* of instruction. No one should think it important that every child in first grade be reading from books by Christmas, since there is no one time when all children in a class should be introduced to systematic lessons in reading printed matter. They have a wide range in their chronological age, mental age, richness and character of preschool experiences, and mastery of the vocabulary and sentence structure of the English language. Admittedly, with wisely devised readiness activities, most children do become mature enough and sufficiently experienced in language to be ready to learn to read during their stay in first grade, if not earlier.

Those with barren preschool experiences or with a need to learn English as a second language may need lengthy preparation for reading instruction. Compensatory education is necessary for those who lack concepts, have a meager vocabulary, and speak faulty English—education that may well begin at nursery school age. For those speaking a foreign language, there must be time to work at accustoming both ears and tongue to the sentence patterns, the intonations of voice, the vocabulary and accurate pronunciation of English.

A third type of child who should be introduced to book reading at a later age is the slow-learner who tends to be immature physically, mentally, and socially and is rarely ready at the age of six to be introduced to systematic, formal reading lessons. Teachers can do much to forestall such children's becoming remedial cases by introducing reading later and proceeding more slowly than with brighter pupils. Thus arises the problem of pacing instruction, especially if pupils are grouped for reading, so that quick learners are not unduly held back and slow learners pushed beyond their current capacity to learn so that they develop bad habits which result in needless deficiencies.

A second major consideration in highlighting prevention is that of selecting the *materials* of the reading program. Among the elements that determine the suitability of materials are these: the concepts necessary if pupils are to understand what they are reading, relative difficulty of the vocabulary and the system for introducing and repeating words within books, length and relative simplicity of sentences, liveliness and movement of action within stories, and suitability of materials to children's maturity.

Since so many children use series of basal readers in learning to read, we should consider this matter. Probably these books, for most pupils, are quite suitable in view of the fact that authors work painstakingly at meeting the general interests of children, building on concepts probably familiar to them, introducing words gradually and giving much repetition, and developing sentences of suitable length and difficulty. Even so, there is no real assurance that a particular series will



993.

fit a particular group of pupils. For instance, rural pupils may be unfamiliar with the typical suburban background of stories; materials may be unsuitably paced. Even if a series of readers is relatively suitable, teachers should intersperse much chart reading with book stories for the slow-learning and should permit quick learners to proceed very rapidly enabling them to read widely from other materials.

Currently, publishers are trying to provide materials better accommodated to the varying interests, needs, and backgrounds of the pupils. To achieve a more natural style, there is less vocabulary control. Books based on different cultural backgrounds are appearing. Certain linguists are lending their knowledge as they collaborate in the experimental development of reading materials that variously stress the phonetic aspects or the structural nature of the English language. Supplementary reading materials in abundance are pouring off the presses; sets of "little books," each book in the set having a different title, are advertised. Trade books are being evaluated and recommended in terms of interest and difficulty. Besides, non-printed materials are widely used; for instance, teacher-made or pupil-dictated stories and practice materials, or the language-experience approach being experimentally developed in southern California.

The third consideration in putting prevention ahead of remedial teaching is the *manner in which reading is taught.* Difficulties may arise because teaching is inadequate or faulty. For instance, I have all too often observed teachers proceeding in the manner of my own teachers of long ago: assigning the next selection for silent study, having the children reading orally in turn, with little or no discussion. Since reading is really thinking—silent reading to get ideas, oral reading to share them—such routinish, mechanical lessons fail to emphasize thinking, and actually may make reading distasteful to active-minded children.

Another all too common fault is the practice of forging ahead—trying to teach children to read before they are ready, going through books page by page whether sight vocabulary and word recognition skills are being mastered or not. Year by year reading grows more and more halting; pupils become more frustrated, discouraged or antagonistic. Such teaching builds remedial reading cases.

Sometimes, too, the teacher rides a hobby, such as having the children act out all their stories as a check on comprehension. Or she may restrict reading lessons to narrative, fiction-type stories and do little to guide children in reading informational materials and studying. Because children become effective readers and lovers of books only as they master a wide range of skills, come in contact with varied materials, and read for many different purposes, no narrow and restricted program for teaching reading is likely to develop a versatile, fluent, able reader.

An effective reading program is based on such policies as these: (1) Concept-building is stressed. (2) Pupils have a purpose for each particular reading lesson—enjoying a story, skimming for main ideas or for specific details, increasing rate, following sequence or organizing a selection in outline form, preparing to read orally, reading critically to determine inconsistencies or propaganda, and the like. (3) Each reading lesson is an exercise in thinking. Pupils read to determine how or why, to compare or contrast, to select the most important point among several. It is through lively, thoughtful discussion that thinking is aroused. (4) Pupils are helped to know how to adjust their manner of reading to the purpose for reading and to the difficulty of the materials. They scan or skim, read relaxedly or studiously according to the situation. (5) Oral reading is used to communicate, not to mouth words.

Teachers should keep alert to experimental programs designed to improve the teaching of reading. Currently we have tryouts of the language-experience approach based on pupils' own stories. Various ways of individualizing instruction to take care of personal interests and needs of children are under consideration. Several communities are working with the i|t|a program with its phonetic system designed to enable pupils to recognize words accurately in terms of the symbol-per-sound system. Linguists are moving in on reading from various directions as they show how to take advantage of the generally phonetic nature of the English language, work with basic sentence patterns, indicate how matters of intonation and juncture operate in effective oral reading, or use transformational linguistics to stress meaningful approaches to reading matter. Compensatory education to supplement children's concepts and to build mastery of the English language is catching on from coast to coast. Ungraded primary organization is contributing to better timing and pacing of instructions.

While it is good to know of these current movements to help in preventing reading difficulties, we should still be careful not to jump on any bandwagon until we have determined exactly what is involved, whether a program is an all-round, effective one, whether conditions locally make it a feasible one. Sometimes school personnel rush into some new movement prematurely and fail in a project that might have been fruitful if there had been systematic preparation of teachers and the community to understand and accept the project.

May I suggest some measures that might expedite the improvement of reading instruction countrywide? (1) Have IRA set up a program of coordinated research. (2) Possibly have IRA hire a team of expert consultants who, invited by school systems and partially subsidized by them, would assist in surveys and conduct workshops for teachers. (3) Have some of the *Perspective* volumes review findings of research and present them in popular vein and with practical suggestions to teachers. (4) Have a rash of well planned and efficiently conducted workshops that will prepare all teachers-in-service to use the best of modern techniques. By such means can we set up programs of prevention to replace remediation.

319.



second, equally bright group between the ages of 7 and 14 years, who were sent to us for evaluation of severe reading, writing, and spelling disabilities.

As the years went by we found that we were able to predict future reading disabilities in a large percentage of the group under age six and we found, on the other hand, that in the reading group not only were there many youngsters who had a history of earlier speech disturbances, but also a good many who, on careful investigation, showed more or less subtle signs of residual language deficits.

Daily clinical observation of these children has taught us to look on language as a continuum embracing all areas of verbal communication: speaking, writing, spelling, reading, and composition. We feel that deviations in one area go along with deficits in related ones and that rather than dealing with a specific dyslexia or with cluttering, we deal with a fairly generalized language dysfunction.

### Definition of the Specific Language Disorder Syndrome

However, so as not to confuse the issue, let me say that when I talk of specific language disabilities I do not mean those in which difficulty with verbal communication is but one aspect of a broader psychopathology.

I do not, for instance, mean the phobic stutterer whose difficulty with speech might be symptomatic of a character disorder; nor do I mean the child whose reading difficulty is non-specific and might be related to emotional infantilism, to a defect in ego-organization or, in some cases, to severe psychopathology.

When I talk of a specific developmental language disability—and I believe that dyslexia belongs in this category—I mean one where communicative intent is clearly present and where the learning drive is not impaired except when it comes to the handling of verbal symbols.

### Features Common to Developmental Language Disorders

Let me enumerate some of the features which we think are significant in the syndrome we call language disturbance.

*Familial Factors.* To begin with, we

## 8. Constitutional Aspects of Reading

**a. *(See Part VI, Section 3.)***

**b. *Reading and Total Language Disability***

KATRINA DE HIRSCH

At the Pediatric Language Disorder Clinic, Columbia Presbyterian Medical Center, we have over the past twenty years seen numbers of children who fell into two distinct categories: 3- to 6-year-old youngsters of at least average intelligence who were referred to us for some kind of oral language disturbance: delayed language development, infantile speech patterns, word-deafness or cluttering; and a

believe that this syndrome has a familial constitutional element. Orton was the first who stressed this point. Weiss has emphasized the concept of Central Language Imbalance which he believes is genetically determined. Luchsinger's recent twin studies postulate the existence of a hereditary weakness in speech and voice endowment. Halgren has shown something of the same kind for reading and spelling disabilities.

*Language Aptitude.* We believe, as Muriel Potter Langman has expressed so well in her paper on the reading process, that individuals differ markedly in their ability to deal with linguistic entities. The range, even assuming similar intellectual potential, is enormous. According to Langman there are those at the lower end of the curve whose lack of language aptitude is just as striking as are the gifts of others in this area.

*Neurophysiological Patterning.* Our next contention is this: individuals who suffer from generalized language disorders often show subtle deficits in other areas of functioning as well. In investigating language disturbances we have to go beyond overt verbal manifestations and carefully evaluate neurophysiological phenomena underlying linguistic behavior. Motility, body image, perceptual, motor and neuro-motor patterning, competence in dealing with auditory and spatial configurations and figure-ground discrimination are all highly pertinent in terms of overall language functioning.

It is true that individual children's competence to deal with different types of configurations varies according to the sensory modality involved: some have severe difficulties in dealing with patterns laid out in space in reading, while their ability to handle auditory configurations is relatively adequate. Others, and I am now thinking of word-deaf youngsters, do not acquire acceptable speech before they see the spoken symbols in print; it is their ability to interpret *auditory* verbal symbols which is defective. However, in most cases of a severe language dysfunction we find a combination of poor motor and visuo-motor patterning as well as trouble with auditory and spatial organizations.

It is not difficult to discover more or less subtle deviations in neurophysiological patterning in the very young child.

Observing motility in four- to eight-year-olds who have difficulty with one or the other aspects of language reveals a distinct pattern: most of these children are very hyperactive and disorganized. This is true not only for youngsters with speech difficulties, but also for those who have not caught on to reading or writing in the first two grades. Such hyperkinesis is not always the result of emotional disturbance and it is not only due to frustrations. Indeed, many mothers have told us that these particular children have been hyperactive from way back, even in utero. Any experienced kindergarten teacher knows the children I mean: the buzz-bombs who make life so hard for themselves and others in the group and who are fundamentally well-meaning and not necessarily emotionally disturbed children. The movements of children with linguistic disorders are more global, less differentiated than those of their peers. During hopping they clench their hands, when flexing the tongue they turn the whole head, during manual activities the entire body is involved. Many 10- and 11-year-old youngsters who are struggling with the rudiments of reading still turn along a longitudinal axis, a sign of plasticity and immaturity of the central nervous system which usually disappears around the age of 7. Children with developmental language disorders frequently show a primitivity of posture and tonus which is typical for the chronologically younger child.

### Grapho-Motor Disturbances and Cluttering

Orton was the first who drew attention to the fact that many children with language disturbances are dyxpraxic—clumsy in manipulation of small muscle groups and have trouble with motor patterning, not only with individual movements, but sometimes as in ideo-motor apraxia, with the total Gestalt of the skilled act. Even those youngsters whose motor skills are fairly acceptable in non-symbolic activities have trouble when it comes to handling a pencil. Some very bright youngsters have a bad time in kindergarten because they are unable to fold paper, to cut out, to color. These are the children who often

996

later turn up with severe writing disabilities. In the first grades they have trouble with spacing letters on paper, with holding the line, with the shape of the letter itself; execution is often jerky and arrhythmic. There is a significant correlation between such grapho-motor disturbances and the speech disorder we call cluttering.

Cluttering speech, which is jerky, stumbling, and explosive, is characterized by excessive rate and erratic rhythm. The papers these cluttering youngsters with severe writing disabilities hand in often look exactly the way they sound. Their jerky arrhythmic handwriting clearly mirrors their fast, disorganized and indistinct oral verbal output. Their illegible handwriting is the exact counterpart of their disorganized speech.

Spatial organization writing is not the only grapho-motor activity these children have trouble with: their human figure drawing is often strikingly primitive and developmentally several years below their chronological and mental age. A child's notion of space originally derives from his awareness of parts of his body and their relationship to each other. Thus his human figure drawing reveals, among other things, his spatial competence, which is of pertinence in reading, spelling, and writing which are patterns laid out in space. It is of interest to note that those youngsters whose oral language development is retarded often show the same primitive body image. This would indicate that primitivity in patterning is a feature in various developmental language disturbances.

We find primitive, spatially disorganized Bender Gestalts not only in dyslexic but also in cluttering youngsters and those with severe articulatory difficulties. These children's visuo-motor organization lags behind and they practically always show the verticalizations, inversions, and poor distribution on paper which is part and parcel of their temporal-spatial problems.

Trouble with left-to-right progression, which is one aspect of spatial organization, is frequently mentioned in the discussion of children with reading difficulties. In most cases of failure to establish a clear-cut superiority of one side over the other we find trouble with both spatial and temporal sequences. The small child who says Crice Ripsy for Rice Crispy, the pupil who recites the "Lord is a shoving leopard" for the "Lord is a loving shepherd," is often the same who shows an unusual number of reversals in spelling and reading. Such trouble with sequences reveals a weakness in either temporal or spatial organization and usually in both.

### Figure-Ground Organization

Figure-ground discrimination, which is another aspect of patterning, is often deficient in the youngster with an overall language disability. To pull out the significant configuration is essential for both speech and reading. The word-deaf child who hears speech as if it were diffuse and undifferentiated noise, the dyslexic youngster who looks at the printed page as if it were a meaningless, undifferentiated design have the same difficulty: the former in the auditory, the latter in the spatial area. Their failure is not related to a peripheral sensory deficit. The word-deaf child *hears* words but he hears them in an unstructured diffuse way. The dyslexic youngster *sees* words but he sees them in an unstructured fashion. In both cases the result is inability to derive meaning from the experience.

### Parallels Between Oral and Printed Written Language Deficits

Speech therapists have known for a long time that children with delayed language development and with articulatory difficulties have short auditory memory spans and poor auditory discrimination. A study by Goetzinger, Dirks, and Baer has shown that poor readers are significantly inferior in both. It is felt that in severe cases this inferiority represents a dysfunction on the cortical level. I have been strongly impressed with the poor auditory discrimination of cluttering children and those with severe spelling disabilities. Such marked difficulty in differentiation of complex configurations seems to be a characteristic feature of the language disorder syndrome.

### Organizational Problems

Language organization is not the only

997.

thing that is vulnerable in these children. The scattered behavior of so many youngsters with language disturbances reflects their difficulty with organizing the endless stream of incoming stimuli into acceptable behavioral configurations. These children's lack of control is not always a neurotic symptom; it might sometimes be simply a form of disorganization resembling the breakdown in language patterning.

Cohn in the *Archives of Neurology* in February 1961 says: "Much of the aberrant behavior is an extreme disorganization of motor patterns as the result of failure to form concepts for the continual bombardment of formed stimuli from the environment. This driven quality of adaptive activity appears to express a pathophysiological disorganization and to really represent a social dyspraxia."

### Language Deficits in Older Children

In the older youngsters many of the original perceptual, motor and visuomotor deviations disappear. As a result it is much more difficult to diagnose an over-all language disability in an older child. However, on careful investigation one will find that the rapid, cluttered, and indistinct speech often persists. One frequently discovers a limited vocabulary and severe difficulty with formulation of both oral and written verbal material. These children ramble on, they are unable to pull a story together. Teaching them to make outlines for compositions is often very difficult. They might have excellent ideas but organization both in terms of content as well as in terms of more formal aspects—punctuation, capitalization, spelling, handwriting—often presents a major hurdle. Poor organization also interferes with subject matter which requires little verbal ability. In spite of often excellent understanding of basic mathematical concepts, these children's math papers are usually so messy and poorly arranged that one is apt to overlook their good potential in this area.

Some of our children "jell" around the ages of 12 to 14 years. They become less hyperactive, their patterning improves. Some compensate by obsessive mechanisms for their original disorganization. Their reading sometimes becomes fluent since they make up for their deficit by sheer intelligence and are able to meaning from context even if they tinue to reverse and misread indivi words.

We see many older children w specific language difficulty has turned what has been called a severe "lear impotence." In some of them, lear attitudes are severely impaired, self in has become permanently damaged. In case of these youngsters, emotional fa have so obscured and complicated original picture that they pose hi complicated diagnostic and therap problems.

### Theoretical Discussion

We share with Bender the concep a "developmental lag" or, as Harris haps more aptly calls it: delayed or organized neurological maturation. believe that a more or less marked de of neurophysiological immaturity un lies the various developmental langu disorders. We further believe that th immaturities are by no means confined verbal performance but tend to show in neuro-physiological phenomena unc lying linguistic behavior. The basic stalt difficulties of these children sh in deficient perceptual, motor, vis motor and behavioral patterning, as w as in trouble with spatial and tempo Gestalten.

We are trying to trace these deficits pre-school children to alert the teach and to instigate appropriate procedu before these youngsters become edu tional and emotional casualties.

998.

Vol. 7, 62

320.

# 2. Psychological Correlates of the Reading Process

218.

KATRINA DE HIRSCH, L.C.S.T.



I shall try in this paper to discuss some of the structures and processes involved in the reading act in the light of Gestalt psychology. I shall then try to apply some of the general concepts to children who are learning to cope with printed words.

## Definition

Reading is the successful response to the visual forms of language. The goal of reading is the understanding of graphically fixed language units.

## Visual Aspects

Reading is obviously more than and different from seeing. More is involved than simple ocular functioning. The visibility of letters is not the same as their readability. Dyslexic children do *see* letters but they do not grasp their symbolic significance. Reading is not only a matter of perception, it is, in the last instance, an intellectual act.

There are, of course, some reading disabilities which are related to visual problems. Robinson and Cleland refer to farsightedness and lack of binocular vision, to difficulties with visual fusion and depth perception which contribute to reading problems.

The 1940 report of the Los Angeles County Medical Association takes a different stand. "Only if visual acuity is reduced to 50% or more will the child have trouble with interpretation of symbols he does not see well. Except in farsightedness of a marked degree, the child's power of focusing is sufficient to give adequate but not perfect vision. Crossed eye with normal vision in one eye has little effect on reading ability."

The discussion whether or not faulty eye movements are responsible for reading difficulties is still going on. Orton and Tinker deny the significance of faulty eye movements in the etiology of reading disorders. Research has shown that the difference in number of eye fixations in excellent and poor readers is surprisingly small. The Los Angeles report quoted above says: "So-called faulty eye movements as judged by regressions depend primarily on poor understanding of subject matter, not on uncoordinated eye muscles, not the eye but the brain learns to read."

Kainz also maintains that the number of eye movements is a function of ability to grasp meaning and not the other way around. In other words, visual processes in reading are largely of a central rather than of a peripheral nature.

## Cortical Functions

Earlier concepts of the central processes pertinent for reading have undergone considerable modification. Neurologists no longer believe that precisely pinpointed brain areas are responsible for specific performance. We do know that in lesions of the angular gyrus the interpretation of printed material is impaired or lost. We also know that the areas adjacent to the angular gyrus do subserve processes involved in reading. However, we no longer believe that we deal with separate and summative cortical excitations. Rather, we assume the existence of highly complex activities involving the whole brain. We know that in aphasic patients who suffer from severe receptive speech disturbances, reading is often impaired as well.

## Release of Meaning

The fact that in cases of language pathology loss of speech is usually accompanied by difficulties with reading comprehension has important implications. For the beginning reader the visual and the auditory structure of the word are intimately bound up with each other and the graphic sign has to be translated silently or aloud into auditory verbal form. The printed word "mat"—a series of letters seen — a sequence in space — is transformed overtly or in inner speech into a series of sounds heard — a sequence in time—which in turn release the concept of "mat." Schilder found an increase of electrical activity of the vocal muscles in slow readers.

While Kainz believes that the highly skilled reader proceeds directly from the printed symbol on the page to the underlying concept, that the written word itself is a carrier of meaning, many studies show that even the fluent reader evokes the auditory and motor images symbolized by letters, but that these images are so fleeting and of so short a duration that the individual is not necessarily aware of them.

999.

Even the practiced reader will resort to vocalization when he meets an unknown word or tries to understand a difficult passage. Inner speech phenomena are probably never entirely eliminated. How many vocal clues are needed may be a matter of reading proficiency.

## Partial Performances Involved in the Reading Process

However, evoking the auditory image of the word during reading is only part of the total performance. Kainz, in analyzing the reading process, finds a number of partial performances: there is the perceptual grasping of letter and word configurations, there is their evocation in inner speech, there is the comprehension of syntactical relationships, the construction of anticipatory schemata as to what the sentence is going to say, there is finally the assimilation of content into an already existing framework. All of this constitutes an integrated performance, each part influencing the others. It is only in unsuccessful reading experiences — as when someone reads a text aloud but does not grasp its significance — that one can separate out partial performances.

## Global vs. Synthetic Reading

One of the basic problems in reading research is the question whether the skilled reader adds letter to letter or rather sound groups to sound groups in order to comprehend the word, or whether the printed word is experienced globally. An answer to this question is obviously pertinent in terms of the battle now raging between the people who teach reading in a global fashion and those who believe that words should be broken up into their phonetic elements and then blended into larger units.

The philosophical foundation for the global approach is based on Gestalt psychology, and it is thus imperative to discuss briefly how this theory influenced the different systems of teaching reading.

## Some Gestalt Concepts

Gestalt psychology, as originally conceived by Wertheimer, defines Gestalt as that function of the organism which responds to a given constellation of stimuli as to a whole. There is an innate tendency in human beings to experience whole configurations. We respond to a given series of separate musical tones as to a tune—a melody—even when it is transposed into a different key. The single element—the separate notes—are different, but the essence of the configuration stays constant, the "figure" as Wertheimer calls it, the tune, in this particular case—remains the same. We respond to an arrangement of pencil strokes as to a square even if the square is presented at a different angle. As defined by Gestalt psychology, visual forms obey certain laws:

1. Form is characterized by being separated and standing out from the ground.
2. The whole and its parts mutually determine each other's characteristics.
3. The various parts of a form have different values, some are indispensable if wholeness is to be retained, others are relatively unnecessary.

These are only a few of the Gestalt laws.

## Application of Gestalt Concepts to Reading

The original Gestalt experiments were done with simple visual forms like circles and squares. Although letters are, of course, more complex—quite apart from the fact that they have symbolic significance—much of what is true for simple forms, is also true for letters and words. We do not see all the single elements in a word, we see its characteristic features. Words have a physiognomy, derived from the particular relationship between the whole and its parts. This physiognomy makes it possible to recognize these words, no matter whether they are printed large or small, black or red, whether the print is good or relatively poor. We know that if one tears a word apart and prints it in separate syllables it takes 66% longer to read, because, as a result of the syllable division, the Gestalt quality gets lost. In one of his experiments Korte presented words from a long distance so that they were at first quite indistinct and diffuse. The first impression of the word was a

1000

global one, including Gestalt qualities like length, density, and so forth. The second phase of recognition began with the moment when characteristic details were recognized as physiognomic and as definitely influencing the total Gestalt.

Because fluent readers are global readers, educators and psychologists have concluded that the best way of learning to read is by the global approach. However, it is only the proficient reader who sees words in a structured and organized way. The beginning reader does not—his ability to differentiate and to integrate is as yet undeveloped and as a result he often cannot cope with long and complex configurations in the form of words. Shorter configurations as represented by letter and letter groups are often easier to take in for the beginning reader. A letter, of course, is a Gestalt also, a partial Gesetalt it is true, but possessing, nevertheless, the same qualities as do whole words. We see the single elements in a letter as little as we see the single elements in a word—we only see characteristic features which enable us to recognize the letter as such—whether printed in black or in red, written in one handwriting or in another. Like a word, the letter also has a Gestalt in the sense that it is separate, that it stands out.

What it amounts to is this: There is no essential difference between the recognition of letters and that of whole words. The process is the same: letters as well as words are grasped on the basis of their determining features. Proficient readers tend to take in more complex Gestalten, but even if they grasp them as wholes, they still must be able to analyze them quickly and reliably into their elements. Reading requires both integrative and analyzing competence.

Thus, the dichotomy between the reading of parts and the reading of wholes is largely an artificial one. In normal reading the grasping of complex configurations and the integration of partial ones goes forward simultaneously. It is the combination of both which makes for good reading. The approach depends largely on the age of the reader and on the reading goal. A research paper is read differently from a light novel. When one has to read a large number of newspapers one takes in only the essential words. However, the beginning reader is unable to "skim"—this is a technique he still has to learn. Integrative and differentiating functions develop only slowly. In the light of this statement what happens to the young child who is first confronted with the printed word?

## Reading Readiness

Reading readiness is a much discussed concept and has numerous facets. Language growth—and reading is one aspect of such growth—is closely related to the emotional climate of the home. The quality of the mother-child bond is a significant factor in early ego organization and basic to verbal communication.

Some children fail in reading because of severe psychopathology, much of their psychic energy is blocked off and not available for learning of any kind. Severe diffuse anxiety, extremes of aggression and submissiveness, psychological infantilism, may all result in a learning disability. Some children are so passive, so phantasy-ridden, that they have little to invest in academic work. However, these children will tend to do poorly in all subjects not in reading only, their difficulties are usually non-specific.

In some homes there is little verbal communication. The cultural level is low, there are few, if any books available, the children are never read to; theirs is an environment deprived of important verbal experiences. For such children language is not a comfortable tool and reading is likely to present problems.

The correlation between intelligence quotient and reading readiness has been discussed extensively and it has been shown that intelligence is by no means always a reliable indicator of future reading performance. Lately the concept of mental age has been stressed rather than that of I.Q. Most investigators feel that the child must have attained a mental age of between six and six and one-half years in order to successfully deal with printed words.

However, by no means all children with a mental age of six and one-half years are able to cope with visual verbal forms. Our guidance clinics, our schools, and our private offices are filled with youngsters

whose mental age is ten years or older and who fail in reading, writing, and spelling for a variety of reasons.

The author feels that "developmental age" is a better yardstick for reading prediction than either intelligence quotient or mental age. There are many lively, reasonably well-adjusted youngsters with excellent reasoning ability, whose developmental age in important areas is lower than that of their peers. These children suffer from what Bender calls a "developmental lag." Language growth and development do not exist apart from organismic growth. Learning to read depends more on maturation than on I.Q., although these two are, up to a point at least, related. Dyslexic children are often neurophysiologically immature. In order to integrate successfully the visual and spatial patterns as they are represented to the child on the printed page, physiological functions underlying such complex activities as reading, writing, and spelling must have reached a degree of maturation.

## Motility

There is, to begin with, the youngster's motility patterning. A young child's movements involve the total organism, they are random and little organized. The ability to move isolated parts of the body develops later out of this generalized pattern. Young children are normally immensely active, their postural reflexes and their tonus reflect a primitive state of organization. They respond to external stimuli in an undifferentiated, global, and sometimes explosive way. Learning to pattern motor and behavioral responses, however, is required in first grade where the youngster is expected to sit still for a considerable length of time.

## Finer Motor Control

Orton was the first to point to dyspraxic features in dyslexic children. Rabinovitch refers to their non-specific awkwardness and clumsiness. Movements require patterning. A skilled motor act, as Gestalt theory points out, is not merely a summation of isolated events; a series of separate movements will not necessarily result in a fluid rhythmic performance. To hold a pencil and learn the rudiments of writing requires a degree of finer motor control which not all children have reached at the age of six and a half years. Youngsters with severe writing difficulties lack the control needed for the rhythmic flow of pressure and release required in the writing act. Indeed, we find many older dyslexic children whose written compositions look like those of youngsters who have just begun to write. Their letters are crudely executed and in some severe cases we find continuing difficulties not only with spacing, but with the formation of the letters themselves.

## Perception

Not only the formation but the very recognition and identification of letters is difficult for some children. Perception starts out as an only crudely differentiated process and becomes more precise as time goes on.

Intact sensory equipment is not all the young child needs in learning to speak and read. It is not sufficient for the three-year-old to *hear* words, he has to differentiate between a bewildering variety of phonemes contained in words. In the same way, it is not enough for the six-year-old to *see* letters and words. His peripheral and central visual apparatus must be mature enough for him to discriminate between minute differences in the shapes of letters and words.

For some children nothing on the printed page stands out—in Gestalt terms the "figure" and the "ground" are fused, and as a result, the printed page looks like an undifferentiated and meaningless design.

Beginning readers and immature older children do not perceive words as structured wholes, but as a jumble of details lacking organization. As Langman puts it, "they do not perceive the complex and distinct internal designs of words, nor do they respond to their general shape and outline." Young children are often unable to grasp the physiognomic features of words, the specific relationship between the whole and its parts which, according to Gestalt theory, makes a word or a letter look familiar. They sometimes recognize a word in one situation, perhaps in heavy black print against the background of a

1002.

white card. However, the perceived Gestalt is unstable and the child might fail to recognize the same word when it is embedded in a page. For successful reading the youngster's perceptions must be mature and stable enough to allow him to transpose the word or letter configuration into different situations, so that he can differentiate between a *t* and an *f* or a *d* and a *b*, whose only discriminating feature is orientation in space.

## Spatial Organization and Printed Language

Since reading is a pattern laid out in space, it is pertinent to discuss briefly spatial organization in young children. The point of origin for all spatial relationships is the child's body image. His own body is the frame of reference. Between the age of three and four the child's image of his body—its parts and their relationship to each other—still is fairly undifferentiated. Body image is determined by laws of growth and development. It unfolds in the course of a maturational process by integration of the child's sensory, motor, emotional, and social experience. Spatial organization in the pre-school youngster still is at a primitive level. Many five-year-olds are unable to see the difference between the picture of an object and its mirror image. Furthermore, the child acquires only slowly the verbal concepts expressing spatial experiences. He has to learn what "upside down" or "right side up" means. As a matter of fact, acquisition of these verbal labels helps to fix the relationships themselves.

Laterality implies an internal awareness of the two sides of the body, directionality is the ability to project this awareness into extrapersonal space.

Ambiguous laterality is an expression of difficulty with spatial orientation and is frequently found in combination with disturbances in understanding and formulating of spoken and printed language. Most young children are ambidextrous and only slowly develop a functional superiority of one hand over the other. Thus it is of interest that Subirana reports that E.E.G.s of strongly right-handed children are more mature than those of ambidextrous ones. This would tend to prove that laterality has its maturational aspects as well as the genetic ones emphasized by Orton. Zangwill resolves the apparent dichotomy between a genetic and a maturational point of view by postulating a constitutionally determined maturational weakness in children whose laterality continues to be ambiguous.

Most researchers do feel with Harris that failure to develop a superiority of one hand over the other usually results in difficulty with consistent left to right motor and perceptual orientation which is essential for reading, writing, and spelling. Most people will agree that there is a significant relationship between poor lateralization and reading and spelling disabilities.

## Visuo-Motor Organization

One of the ways we judge spatial organization is by means of the Bender Gestalt test, which is designed to evaluate visuo-motor organization. The evolution of visuo-motor Gestalten is primarily a developmental process, and the youngster who is expected to cope with reading and writing must have visuo-motor experiences similar to the adult's. The Bender Gestalt test correlates highly with existing reading readiness tests and it has been shown that the visuo-motor competence of poor readers is inferior to that of good ones. Difficulty with arrangement of the Gestalten on paper, tendency to rotation, and verticalization all bespeak the dyslexic child's troubles with spatial patterning.

## Temporal Organization and Oral Language

Language in its different forms is organized in a time-space pattern. Chesni and Simon say that dyslexia is a disturbance in spatio-temporal organization, which consists, according to Hardy, in failure to "perceive and reproduce the serial order of auditory and visual information." As discussed earlier, speech, which demands sequential organization of linguistic units in time, is intimately linked to reading.

Disorders of auditory memory span and difficulties with auditory discrimination

1003

interfere not only with speech, but also with reading and spelling. For spelling the simple recognition of visual configurations is not sufficient. Spelling requires reproduction of these configurations, and if their temporal representation is inadequate, spelling difficulties are bound to follow. Vernon says that bad spelling reflects a lack of phonetic appreciation. Reversals of sounds in speech show up in reading reversals. Trouble with the intonational and melodic aspects of oral language are usually reflected in arrhythmic and non-fluent reading. It is quite possible that the same basic disturbance in temporal patterning underlies the rhythmic disorders of both reading and speech.

There is an abundance of literature dealing with the relationship between poor articulation and dyslexia. It is less well known that inadequate inner language structure and grammatical deficits will tend to interfere with the formation of anticipatory schemata in reading.

Another aspect which has been largely overlooked, and which we have long felt is an important factor in dyslexia, is word-finding difficulties. The child who has trouble evoking familiar word concepts when presented with pictures, is bound to have difficulties with the printed symbols representing these concepts. Rabinovitch feels, as does the author, that anomia — word-finding difficulty — is a significant and often neglected cause of reading disabilities. Dyslexic children's vernacular may be adequate, but they are frequently unable to remember not only the letters of the alphabet, but also the names of weeks and months. Since naming is a conceptual function, difficulty with naming would reflect not only trouble with all types of sequences, but also problems of a categorical nature.

Another and very important speech disturbance is cluttering, which is characterized by extremely fast, arrhythmic, and disorganized verbal output and is frequently associated with severe spelling disabilities. The clutterer's reception and reproduction of auditory configurations is usually diffuse and poorly structured—he will tend to say "monstry" for "monastery," and this is the way he will spell the word. His poor auditory discrimination is directly reflected in his inferior spelling.

## Individual Endowment in the Different Modalities

We know that normal individuals' endowment differs in terms of the various sensory modalities. I now refer to the auditory, visual, and motor types described by Charcot and discussed by Freud in his paper on Aphasia in 1886.

Children vary enormously in ability to deal with the various sensory modalities. Some show excellent competence in the visual-spatial area, in striking contrast to their weakness in the auditory-motor realm. Others show a different pattern: excellent auditory ability while visual-spatial performance lags.

We are now testing approximately 100 children by means of a battery of 42 maturational tests for a reading prediction study on the kindergarten level,* and we are trying to get an impression of each child's maturational pattern in the various modalities and in the following areas: motility, gross and fine muscular coordination, laterality, visuo-motor organization, body image, figure-ground discrimination, auditory competence, receptive and expressive aspects of oral language, and matching ability. So far we have observed a number of phenomena:

1. There is a striking difference in children's performance from month to month, between the ages of five and six, before they have been exposed to formal learning. Apparently this age span is a crucial one in terms of maturation.
2. Some of the children's maturational patterns are bizarre in the sense that they are far advanced in one modality and quite slow in another one.
3. Some youngsters seem to mature slowly in *all* modalities in spite of good reasoning ability. One gets the impression that they have trouble with the structuring of Gestalten on different levels and in various areas. Their immature motor patterning, their trouble with organizing auditory and visual stimuli into sharply and clearly delineated configurations, their primitive perceptual and motor experiences, and their diffi-

*Grant from the Health Research Council of the City of New York, Contract No. U-1270.

culty with reception and expression in oral speech seems to reflect some basic Gestalt weakness—perhaps as Bender and Subirana suggest—some inherent maturational deficit.

## Implications for Teaching

What then are the implications for the teaching of reading? Most children learn to read regardless of the method of teaching. They learn to integrate short configurations into larger ones and analyze wholes into their determining parts, simply by being exposed to them over a period of time and by being given some organizational principle to help them unscramble printed patterns. The majority of bright youngsters learns to integrate and differentiate toward the middle or end of first grade, and as time goes on they acquire a stable enough perceptual organization to enable them to maintain a "linguistic Gestalt."

However, there are many other children for whom specific teaching approaches will make a world of difference. And only if we study the various sensory modalities differentially will we find out what type of learning a child can use best. The work done by Hardy and Wepman in the auditory realm and the very important new investigations done by Birch in the visual and motor sphere have significant implications for learning of both normal and handicapped children.

Since, as the author tried to show, reading requires both the grasping of wholes and the analyzing of parts, there is no real dichotomy between the teaching of whole configurations and that of separate units which are blended into larger entities. What method is best depends entirely on the individual child, his specific competence and weakness, and his differential maturation in the various modalities.

The youngster who has "physiognomic" troubles, as it were, for whom words do not easily become familiar even after many exposures, the child whose visual-spatial competence is lagging, will do better with phonics, which involves temporal rather than spatial organizational principles. If the child's auditory ability is adequate, phonics will make it easier for him to link the visual with the auditory structure of the word. Moreover, since the learning of smaller units reduces the complexity and length of Gestalten, such a child will find it easier to cope. Phonics does not, of course, mean the simple adding of sound to sound—after laboriously blending short units, there comes a moment when the process changes qualitatively and the Gestalt "jells"; only from that moment on the child is actually reading.

On the other hand, there are chidren who cannot possibly be taught by phonics. Children, for instance, who have trouble with analysis and synthesis, whose intellectual potential is low, whose auditory competence is weak, whose frustration level is too low to build up words slowly and patiently from their determining parts, will undoubtedly do better with the whole word approach.

It is not easy for the overburdened classroom teacher to investigate each child's competence and weakness. On the other hand, an awareness that avenues of approach are not necessarily the same for all children, has significance for all teaching, not only for reading. Such awareness is especially important in dealing with those children whose maturational pattern is markedly uneven. Much time and effort could be saved by careful study of the differential maximal learning modality in children.

Kotka says any perceived Gestalt is a product of organization and maturation and is promoted by training. Such training contributes to the formation of essential sensory-motor patterning in the Central Nervous System. We know from animal experiments that the non-use of a function leads to atrophy. Thus, the emphasis on maturation should not be understood to mean that one should sit back and let development do the rest. The clinician's and educator's task is to study carefully the maturational level of the different modalities in each child who has difficulties. Thus, in the framework of a warm and supportive relationship the teacher can help the child perform at the highest level of his potential.

**To Sum Up.** Reading is one segment of the interrelated skills which we call language. It requires a relatively high degree of integration and differentiation. If



viewed as immaturity of Gestalt functioning, many of the correlates of reading difficulties like reversals, poor auditory discrimination, figure-ground difficulties, and poor oral speech become a comprehensible part of the total picture.

Differential study of the maturational level of the various sensory modalities will prove to be helpful not only for remedial work, but will also, in the last instance, provide another avenue for exploration of educational tools and methods.

1005

321.

Vol. 5, 1960

## 6. In Clinical Programs

## a. Neuro-Psychological Factors as Causes of Reading Disabilities

60.

CARL H. DELACATO

The *neuro-psychological* concept for the diagnosis of reading problems and *neurological organization* as the primary treatment modality is based on the premise that language is the distillate of man's phylogenetic neural development and that normal language function and reading are the distillates of a total ontogenetic neural development.

Our original studies aimed at finding the common characteristics among poor readers indicated *no significant correlation* between the following and poor readers as a group:

1. low intelligence
2. common socio-economic status
3. race
4. religion
5. divorce in family
6. very progressive schooling
7. very conservative schooling
8. emotional maladjustment
9. too much phonetic instruction
10. faulty school placement
11. changing teachers
12. social immaturity
13. rigid parents
14. lax parents
15. poor in arithmetic
16. restricted speaking vocabulary (bi-lingualism)
17. severe emotioal conflicts at home
18. hostility on the part of the child
19. exhibitionism
20. poor hearing
21. poor vision
22. poor attitude toward school
23. nail biting
24. poor present health
25. lack of interest
26. lack of motivation
27. lack of reading materials at home
28. a specific teaching method

These original studies indicated that groups of poor readers exhibited a lack of neurological organization as their most significant common trait. Our present studies indicate that approximately 70 percent of children seen by our reading clinics have some need for and do profit from neurological organization.

These children are not easily identified by the typical neurological and psychological tests unless they have gross disorganization or have a traumatic etiology. We have concluded that these children have suffered some slight developmental loss either in properly organizing subcortical neural levels or in establishing a complete dominance configuration. When these factors are changed through proper neurological organization we find that the children learn to read and that the technique used to teach them becomes secondary in importance to proper neural organization.

Let us analyze man who is a speaking and reading being to see how poor readers differ from the developmental norm of good readers. Man differs from lower forms of animals and has been able to conquer his planet because of the following neuro-psychological functions which are uniquely his. He can supinate and pronate his hand, he has finger-thumb opposition, he can stand fully upright, he has functional stereoscopic vision, and he has cortical hemispheric dominance. All of these have great causal implications for man's most significant neuro-psychological achievement; that of symbolic language and its concomitant, ideation.

If we analyze man's neurological development phylogenetically we find that the development of the nervous system from simple to complex takes a vertical course from the low spinal cord area, going vertically through the higher spinal area, medulla, mid-brain, corpus collosum and cortex. This phylogenetic development is recapitulated ontogenetically in man. Man has added a lateral progression at the level of cortex wherein the right or left hemisphere becomes the final point of dominance. This orderly progression is an *interdependent continuum*. If a high level is unfunctioning or incomplete, the next lower level takes command. A lack of organization at lower levels influences the function of higher levels. It is the final lateral progression which enables man to accomplish those unique neuro-psychological functions mentioned above.

The neurological differences between man and slightly lower forms of animals are not cellularly important. The basic difference between man and the animal world is that man has achieved hemispheric dominance at a cortical level. Man has evolved to the point where the two hemispheres of the brain although mirroring each other physically, have differentiated functions. Completely right sided humans are one sided; i.e., they are right eyed, right handed, right footed, with the left cortical hemisphere controlling the skill aspect of the organism. The opposite is true for completely left sided humans.

We have found that children who do not fit into this developmental pattern have language and/or reading problems.

Diagnostically we proceed from cortical function down. Where we find deviations from the normal progressions, treatment procedures have been established to facilitate neurological organization. When a child is neurologically organized he can profit from reading instruction. Without proper neurological organization most of



1006

our reading techniques prove relatively ineffective.

We begin at the level of cortex and hemispheric dominance.

1. Ascertain handedness using the usual techniques and adding supination-pronation and opposition bilaterally to better evaluate the handedness.

2. Ascertain footedness utilizing the usual techniques.

3. Ascertain the controlling eye in binocular vision. This is done via the Berner rationale utilizing tests 4, 5 and 6 of the Telebinocular. An evaluation of the sighting eye, although considerably less reliable than ascertaining the controlling eye, is also helpful.

Through the observation of the combination of the above, we can ascertain the natural laterality tendency and if any of the factors above do not fall on the side of natural laterality the appropriate treatment procedures are used.

1. Make the dominant hand the most skilled and most used hand by re-enforcement or re-education.

2. Establish the eye on the side of dominance as the controlling eye in binocular vision. This can be done through occlusion and re-training. This should begin at far point and then be followed at near-point.

3. Re-educate the child so that the proper foot is dominant.

The next level of diagnosis and treatment is the ascertainment of sub-dominant cortical functions. Since dominance implies the higher level of control, and since it is essential and what we are striving for, the irradiation of the sub-dominant hemisphere should be discontinued so far as possible. The primary sub-dominant function which interferes with the complete establishment of dominance is *tonality*. Music and singing should be deleted from the child's environment as much as possible at this time, as should be tonalized oral reading.

The next significant diagnostic area is at the mid-brain level. It is characterized by cross-pattern function. It can be evaluated by having the child creep or walk, and ascertaining the serialization of these acts. In proper cross-pattern creeping, the side toward which the head is turned has the arm flexed and the leg extended. As the head turns, the arm on the other side of the body is flexed and the leg on that side is extended. This should also hold true with normal walking, and both creeping and walking should be smooth and serialized. One can see this pattern beautifully exaggerated if he examines a still photograph of a sprinter running.

If this pattern is not followed, the child should be taught to creep and walk in a proper cross-pattern in order to facilitate greater neurological organization at this level.

The organization of the brain stem is ascertained during sleep. When asleep the properly organized child usually sleeps prone in the tonic-neck reflex position with the flexed arm and leg on the sub-dominant side and the extended arm and leg on the dominant side. An apparent disorganized sleep position, or mirrored pattern does not necessarily indicate neurological disorganization if turning the head elicits a tonic neck reflex, or the subject awakens.

A lack of organization at this stage indicates the need for re-education at a homolateral level. The patient can be organized at this level through crawling exercises in a homolateral pattern.

Having ascertained the areas of neurological organization which are lacking, a pre-remedial program aimed at establishing neurological organization is initiated. Reading activities are discontinued during the pre-remedial period. This usually lasts about 6 to 18 weeks, during which time periodic re-evaluations are made. When neurological organization is achieved the child is returned to his remedial and/or educational situation.

We find that those children who are properly neurologically organized become able to profit from remedial instruction whereas they had not been able to do so prior to the pre-remedial program.

The *neuro-psychological* approach to the diagnosis of reading problems and *neurological organization* as the remedial procedure is the result of the work of The Rehabilitation Center at Philadelphia, the Chestnut Hill Reading Clinic of Philadelphia, and Centro De Reabilitacao Nossa Senhora Da Gloria, Rio De Janeiro, Brasil. For a complete description of the basic research and rationale please see: 1) *The Neurological Organization of Developmental Stages of Mobility in the Severely Brain-Injured Child* by Robert Doman, M.D., Eugene Spitz, M.D., Elizabeth Zucman, M.D., Carl H. Delacato, Ed.D., and Glenn Doman. This article has been accepted for 1960 publication in the Journal of the American Medical Association. 2) *The Treatment and Prevention of Reading Problems* by Carl H. Delacato, Ed.D., Charles Thomas Co., Springfield, Ill., 1959.

1007

322.

245.

## B. INTERMEDIATE LEVEL

### 1. Diagnostic Teaching in Upper Elementary Grades

MARGARET J. EARLY
Syracuse University

HOW WILL TEACHING reading in the upper elementary grades be affected by the overwhelming attention currently being paid to beginning reading instruction? How will it be affected by changes in curriculum and organization such as the middle school, non-graded programs and varying degrees of departmentalization?

There is the possibility that upper elementary teachers will once again listen to the siren song of "learning to read in primary grades and reading to learn thereafter." The grain of truth in this cliché seems to be supported by claims of newer basal programs and linguistic-phonics approaches that all the word-analysis skills, from letter-sound relationships through use of the dictionary, can be learned by the end of third grade. Suppose that excellent teaching in the primary grades did indeed insure mastery of this stepped-up program, so that by fourth grade most children could decode any printed word and use context and other comprehension skills to discover meanings. Would teachers in grade four and beyond then be justified in adopting "reading to learn" as their watchword? No, not if that slogan is interpreted as assigning students to read without teaching them how. But if "reading to learn"

1008

is interpreted as teaching youngsters *how* to learn through reading, there is reason to believe that reading programs in upper elementary grades may be greatly strengthened. Real improvements in materials and methods of teaching beginning reading have appeared in this decade. Teachers in grades four to six now have the chance to build stronger programs on the improved foundations of primary reading instruction if they refuse to believe that a good start means that "reading to learn" just happens.

Upper elementary teachers who have learned to analyze the reading process and to observe its development in individual children are prepared to teach reading-to-learn skills or to re-teach learning-to-read skills. They know that some children who have "been through" the 3-2 reader have not necessarily mastered skills of beginning reading. On the other hand, they know that some children at the beginning of fourth grade have not only mastered beginning skills but are able to apply these skills in increasingly complex materials. Diagnostic teaching is as vital a service to advanced students as it is to the retarded.

A second influence on teaching reading in upper elementary grades—the burgeoning curriculum and new organizational patterns—may be positive or negative. Teachers' skills in diagnosis can determine which. Surely the reading program stands to suffer from increasing specialization in the upper elementary grades if the experience of the junior high school is duplicated. Here we have seen departmentalization make every teacher a subject specialist (in intent, if not in fact) and none a teacher of reading. We have tried to patch up the situation by creating "extra" reading classes that isolate skills instruction from the learning of subject matter, or we have tried without notable success to train subject specialists in methods of teaching reading.

The way to avoid similar problems in the elementary school is to keep the self-contained classroom, bringing subject-matter specialists to the children instead of dispersing them on a fixed schedule to teachers who lose track of individuals when they have pupil loads of one hundred or more. In a design that allows for specialization without departmentalizing, language learning (including reading) is central to the whole curriculum and the core of the classroom teacher's education. The help he needs in teaching math and science, social studies, art, and music comes into the classroom in the person of the teacher-consultant who adds depth, richness, and accuracy to the curriculum. But the children continue to be observed and guided by the one who knows most about their learning processes. I am suggesting that reading specialists in the intermediate grades should be the classroom teachers. The subject specialists should be the "floaters," working with teachers and pupils but without permanent relationships with or responsibilities for grading any groups.

What turns a classroom teacher into a reading specialist? More than anything else, it is the ability to diagnose and to develop strengths and correct weaknesses. Any teacher can distinguish good readers from poor and fair-to-middlin' ones. During the first week of school, without consulting the cumulative folders or the standardized reading-test scores, Miss Jones can tell which of her students can read the fourth grade texts with ease and which cannot. But so could any layman. What makes Miss Jones a professional is her skill in analyzing *why* pupils can read some books fluently and with understanding and other haltingly and without comprehension. We mean "why" in the sense of what specific reading skills are present or lacking. The deeper "why" of causation is one that Miss Jones should also explore, with help from the school psychologist, physician, the child's family, and others; but when she finds pupils who are severely and inexplicably retarded, she will have to refer them for clinical diagnosis and treatment.

Determining the readability level at which a child can learn through reading is a necessary first step. It is accomplished through the informal inventory based on graded selections from basal readers, which serve also as a limited vehicle for analyzing the reading performance. This crude instrument allows a sensitive teacher to guess at how a child normally attacks silent reading by sampling how he reads at sight and by comparing com-

1009.

prehension after silent and oral reading. Analysis of oral-reading errors can reveal specific weaknesses in word attack—errors on medial sounds are most common among poor readers in intermediate grades—and in use of context. But the significance of specific errors varies widely. A meaningful substitution is a far different order of error from a mispronunciation or wild guess. Refusal to try a word indicates the most serious weakness. Similarly, comprehension errors vary in significance. Accurate comprehension after silent reading alters our evaluation of the oral-reading performance.

So, merely quantifying errors on an informal inventory is no more revealing than on a standardized-test score. Each error must be weighed sensitively if appraisal is to be accurate. Even so, an informal inventory, like any other test, only starts a series of hypotheses. Diagnostic teaching is the process of continuously checking hunches.

The classroom teacher uses the informal inventory only on those pupils he suspects of reading below grade level. He identifies these through testing oral reading in small groups and notes on index cards the nature of each child's performance. Children who read a sample passage from a grade-level reader with at least 70 per cent comprehension and few gross oral-reading errors may be grouped for instruction at this level. Excellent readers form another group, perhaps to be instructed from a higher-level basal. After individually testing the poorest readers, the teacher knows the level where developmental-reading instruction can safely begin for them, and he knows the types of weaknesses that require supplemental skills instruction. Moreover, through individual and group testing of this kind he acquires a first rough estimate of the independent-reading levels of average and poor readers.

Since the basal program is but one phase of teaching reading, diagnosis extends to the subject texts and to analysis of study skills. (Children reading on primary levels are excused from this phase of the diagnosis. They are not yet ready to learn very much through reading; their study of math, science, social studies, and literature must be largely accomplished through listening and oral participation, with tape recordings and visuals supplementing class discussions.) We cannot assume that children capable of reading grade-level basal readers will learn through reading subject texts at corresponding levels.

Diagnosis should begin with the teacher's careful analysis of these textbooks, which will reveal the need for types of reading not ordinarily encountered in basal readers, workbooks, or skills exercises. For example, successful reading of science texts requires initial understanding of the organizational pattern of the whole book and of individual chapters, the ability to integrate the reading of experiments (following directions, using diagrams and pictures) with the basic text, skill in noting details, ability to construct concepts and to hypothesize, ability to evaluate and revise generalizations, and habits of flexible reading. Skill in identifying major and minor ideas, which is developed on well-structured expository prose in reading workbooks, must often be abandoned or greatly modified for reading science, math, and even social studies books, which employ single-sentence paragraphs, omnibus paragraphs containing more than one main idea, and transitional paragraphs that express no main idea. Outlining based on following the author's organization does not work in many textbooks which instead require the student to reorganize the author's ideas into a logical, easily retained structure.

Analysis of subject texts will convince the teacher that the spectrum of reading skills to be developed in upper elementary grades extends far beyond the basal. Thoroughly acquainted with the styles of textbook writing and publishing, the teacher will observe carefully how students respond to problems such as those noted above, will estimate how much assistance they need, and will decide when and how to offer it.

The diagnosis which precedes teaching will have to be limited. One clue to the readability of a specific text may be obtained by duplicating a passage omitting every fifth or seventh word. Children who can restore about 70 per cent of the deleted words (or their equiva-

1010

lents) can probably learn from this text.

Teaching the over-all structure of the whole book should be a first step, followed by frequent checks of ability to use the table of contents, index, glossary, and special features. Diagnosis continues as the teacher evaluates children's readiness for each assignment in a subject textbook, observes their attack, and listens to their discussions of what they have read.

Since there will be differences in the abilities of a group of children for whom a single textbook is a reasonably good choice, differentiated study guides will provide more direction for some, less for others. A study guide for one group may re-word complex passages or supply help with concept formation or call attention to context clues. For another group using the same text, the study guide may call for more subtle inferences or may challenge pupils to question facts and generalizations.

In the upper elementary grades, children of comparable abilities in word skills and basic comprehension develop divergent rates of reading. Diagnostic teaching uncovers such differences and makes provisions for them.

Diagnosis of reading and study skills means probing children's responses to reading and their uses of ideas obtained from reading. Comparisons must be made between the ability to recognize ideas on objective-type tests and to reproduce them in free responses and the ability to interpret and extend ideas. Since facility in expression is crucial in measuring comprehension, written and oral responses should be compared.

Yet diagnostic teaching is not simply a matter of varied testing procedures. It is more a matter of observing how children respond to various approaches, how they answer questions phrased in different ways, and how they react to different degrees of teacher direction. Diagnostic teaching means observing how a child attacks an assignment in a textbook, how he uses references, how he chooses books, how he behaves while reading, and what his attitudes are.

The object is to find out what lies behind a test score and how a pupil learns best in order to facilitate learning to read and to make learning through reading not merely possible but desirable in his eyes.

323.

Vol. 10, 1965

178. 

# 2. Helping Retarded Readers Within a Small School District

DUANE G. GOOGINS
St. Anthony School District, Minneapolis

OUR SCHOOL district's philosophy states that a school is "to take youth as it finds them with their diverse backgrounds, abilities, achievements, and interests and provide a program of instruction that will allow for individual differences and develop those qualities necessary for self-realization."

With this philosophy in mind one has little reason to question the necessity of including remedial reading services within the realm of the ongoing curriculum.

The purpose of this paper is to outline the remedial reading services offered in a relatively small school district and to indicate their ongoing process. Factors which will be presented are:

The need for remedial reading instruction and recent trends

Securing support for a remedial reading program

Organization and implementation of remedial reading services

## The Need for Remedial Reading Instruction and Recent Trends

Mary Austin[1] reports in a recent survey of 795 school systems throughout the United States that only 61 per cent of the districts had any ongoing remedial reading programs. The programs offered were quite divergent and had little in common, other than seeing the need for remedial reading services and stating that a great variety of materials were used, many of which were devised by the teachers who use them.

Adequate diagnosis seems to be lacking in most districts, and rarely are children given remedial instruction until they reach the fourth grade level. The oft mentioned need for tutor-classroom teacher coordination in reality hardly exists.

The results of this survey point out what we already know: we need more and better help if we are to do more than give lip service to those children who need remedial reading help.

In an effort to initiate action toward this end in the St. Anthony Village School District, the school psychologist was charged with the responsibility of surveying our school population to determine how many students were presently in need of remedial reading services.

A survey indicated there were 97 students in grades two through twelve in the public schools who were retarded in reading skills to the extent they needed remedial reading help. This group constituted eight per cent of the student population, grades two through twelve.

Knowing the number of pupils in need of help and realizing the importance of initiating service as soon as possible, the next move was to elicit support for a remedial reading program through the school faculties and the administration—as well as to seek support from the community.

## Securing Support for a Remedial Reading Program

The teaching staff needed little coaxing to convince them that remedial reading instruction should be included in the programs offered within our school district. It seems as though our teachers had "discovered" this need some time before.

However, it was felt that there ought to be clarification as to how corrective services could be accomplished within the classroom setting, how a remedial reading instructor might do demonstration work for the teachers, and how parents of children referred for remedial reading could be advised that remedial readers have already shown lack of response to classroom correction efforts.

Data from the survey, faculty request for aid, and the desire of the school principals to upgrade reading programs were then presented to the superintendent of schools.

The superintendent's inquiry about

[1]Mary Austin. The First R: The Harvard Report on Reading in Elementary Schools. New York: Macmillan Company, 1963.

1012

community reaction led us to present PTA programs which included panelists and a nationally known authority in the area of reading.

Wide community support was given for the initiation of remedial reading services, and a suggested schedule for a program was requested by the superintendent which would include all eligible children within our school district.

## Organization and Implementation of Remedial Reading Services

To facilitate the desire to include all the children living within our school district, whether attending public or private schools, a two fold approach to aiding retarded readers was planned. A six-week summer program was set up to enable students to attend for remedial reading help. Individual or small group work, on a continuing basis, during the school year in the public school was planned.

The purpose and goals of a remedial reading program will be reviewed at least twice a year at teachers' meetings and workshop sessions. Factors such as referral procedures, complete diagnosis of students, materials available for teachers reference and use, books and materials used in tutoring sessions, parent-teacher-psychologist conferences, materials for parents' use, and *adequate* feedback and correlation with students' classroom activities will be discussed.

## Summer Remedial Reading Program

The six-week summer remedial reading program was established for the purpose of aiding retarded readers in grades three through twelve who live within our school district. The objectives of this program are to aid the child in basic reading skills, maintain the skills that he has and develop positive interests and attitudes toward reading.

Population is selected through referral from classroom teachers. Each referral is examined in detail to determine the child's present reading level, his ability level, attitudes, and interests. When a child is below his reading expectation level (graduated from six months below his expectancy level at grade three to one-and-a-half years at the senior high level) his parents are asked to consider sending him to the six-week tuition free remedial reading program.

The population ranges from seventy to eighty students during the summer, and they are divided into four classes—two classes at the third-fourth grade level, one at the fifth-sixth year level, and one at the junior-senior high level.

All materials used during the summer remedial program are different from those used during the regular school year. The atmosphere is quite relaxed; field trips are taken to libraries, and many audio-visual materials are utilized.

Close contact with the home is maintained through letters which explain the daily routine and give suggestions as to how the home might reinforce interest and skills taught. Parent-teacher conferences are held at the conclusion of the six-week program and detailed reports are written up for each child. The reports are given to the child's teacher in the fall during workshop week.

## Regular School Year Services for Retarded Readers

Remedial reading services during the school year are limited to fourth, fifth, and sixth grade students who are very seriously retarded in reading. This is due to the lack of faculty—not lack of need for services.

The school psychologist, who is also the reading consultant, works with these children on an individual or small group basis two or three times each week.

The administration, faculty, parents, and students have expressed appreciation and satisfaction with the remedial reading services offered. Median gains on standardized tests indicated five months' growth in reading achievement during the 1964 summer program. Growth has varied from average expectancy to twice normal reading growth expectancy for students during the school year.

However, it is not merely the "standardized test results" about which we are excited, but the change of attitude we have seen in so many of these students who have found out that they can read, although it has been more work for them than for most of their classmates.

324.



Vol. 10, 1965

## 2. Common Needs in Clinical Cases

MARJORIE SEDDON JOHNSON
Temple University

GEORGE, a bright eight year old, cried and clung to his mother outside the building. It was his first day at a school designed to provide clinical instruction for children with severe reading disability. As a result of a complete diagnostic study, his case had been typed as remedial with emotional involvement. He had come to the reading clinic on the referral of a psychiatrist and a hospital's diagnostic clinic. He was frustrated with the task of reading a preprimer although he could understand materials at fourth reader when they were read to him. The prognosis in his case was guarded.

Max, also eight and equally bright, made an entirely different kind of entrance. He seemed fairly confident of himself as he walked down the hall toward what was to be his classroom. Max, too, had been referred for evaluation after previous studies in a child guidance clinic and another psycho-educational center. Although he could recognize immediately in isolation all words on a test at preprimer, he could not respond adequately to discussion of the ideas even at this level. With primer materials he was completely frustrated in spite of ability to pronounce most of the words accurately. His case was typed as corrective with the prognosis fair to good, depending on the educational setting in which he was placed.

Both boys were clearly clinical cases. Each had developed a learning problem in the reading area sufficiently serious to warrant the recommendation for instruction in a clinical setting. One evidenced almost no ability to recognize printed word forms. The other had developed a certain amount of skill along these lines but had severe problems with comprehension. What common needs could have brought them to the same door?

### Need to Survive

Perhaps it would be enough to say that there is one common need apparent in all clinical cases, the need to survive. They come for a diagnostic study and ultimately for clinical instruction with a long history of continued failure experience. This is often true in spite of the fact that many different approaches to teaching have been tried in an effort to help them. They have not really *lived* in the normal classroom as other people have lived. Their activities have not been those of the normal achievers. They literally have not survived as members of a learning group. As learners they have died along the way, some quickly and some only after a long and valiant struggle.

In order to survive as self-respecting individuals they need clinical attention. The roots of their learning disabilities must be found and suitable instructional and learning techniques used to help them overcome their problems with learning. Without this, the intelligent being may soon be lost both to himself and to society.

### Need for Successful Experience

The optimum course of action for "guaranteeing" successful experience for clinical cases would be one directed toward prevention of difficulty. Early identification of the signs that the child may not be able to learn in the normal classroom setting or with the instructional approaches effective with most children would allow him to begin with a specialized program. In this way his first learning experiences might more likely be successful ones and he could go on his way without developing the devastating questions about himself which are so often characteristic of the child by the time he finally reaches the clinic.

At present, the facilities for adequate detection of potential learning disability are limited. Consequently, the primary

1014

presenting problem when a child is brought to a reading clinic is most often his continued failure in learning situations. Many attendant complications accompany this basic problem. Discouragement, withdrawal from or resistance to learning situations, and real invasion of the individual's emotional integrity have often resulted. An actual distaste for reading, as well as a fear of approaching it, is a natural concomitant of this continued failure experience. Negative conclusions about his fundamental capacity for learning may have been reached.

To overcome all of these reactions, obviously real obstacles in themselves to learning, the child will have to experience success. Although verbal reassurance that he is capable of learning may make some inroads into the problem, only actual successful experiences will be really convincing. For the child who has been unable to acquire a basic sight vocabulary, success means mastering words so that he can recognize them immediately and effortlessly. Word-learning techniques which will allow this mastery, activities which will improve his learnings, and actual reading of materials made up of words he has learned will be required. For the child who has had comprehension problems, carefully structured guidance will be necessary so that he can reach the point of real understanding of and ability to use the ideas he meets.

This need for success can be met, then, only when the child has a program planned to meet his particular needs. It must be based on a careful diagnosis of the factors involved in his disability and the nature of his present functioning. Teaching techniques, materials, particular skills and abilities to be emphasized—all must be selected in terms of the child's own characteristics, his needs and his readiness to learn.

## Implications for Clinics

The basic needs of clinical cases could be summarized as, first, understanding of the nature and sources of the learning disability and, second, treatment which will allow them to be successful in learning. These needs dictate certain minimum characteristics of clinical programs.

1. The program of diagnosis must be a comprehensive one. If the factors involved in the learning disability are to be identified, there must be provision for evaluation in psychological areas such as general capacity, association, memory span, personality, perception, conceptualization; screening in vision, hearing, neurological functioning, speech; observations and case history data on general health, and physical development, oral language development, educational progress and adjustment; analysis of the present achievement status in auditory and visual discrimination and actual levels of performance and specific strengths and weaknesses in reading, spelling, and other areas.

2. The findings of the diagnosis must result in specific recommendations for treatment or referral for further evaluation.

3. Instructional facilities must be available for full-time school treatment designed to meet the individual child's specific needs. This means there must be a flexible and versatile program.

4. Highly trained personnel must be available for both the diagnostic and instructional work.

5. Facilities for research and an active program in this area must be a part of clinical activities if further knowledge applicable to prevention, diagnosis, and treatment is to be acquired.

Unless these minimum qualifications are met, the basic problems of clinical cases cannot be overcome. Although there are certain common needs in clinical cases, they arise from a complexity of interrelated factors. Attention to all of these is essential to the success of a clinical program.

325.

Vol. 5, 1960

## c. Reading Readiness in the Brain-Injured

16.

NEWELL C. KEPHART

Among the very basic activities involved in the reading process are perceptual acts. The recognition of a letter or a word or a phrase on a page begins with perceptual activity. Because the brain-injured child so frequently experiences difficulty in the basic perceptual process itself, we have chosen to discuss certain aspects of this phase of the reading process in this paper. These children also present many other problems in reading but we have chosen perception because of its basic role and because space does not permit more extensive discussion.

In recent years we have come quite universally to speak of perceptual input as coded input. We recognize that all of the sense organs send signals to the cortex in terms of patterns of electrical impulses over nerves. These patterns must be interpreted and decoded before any meaningful perceptual content can be developed. Because of our preoccupation with that perennial subject of psychological experimentation, the college freshman, we sometimes give little attention to the learning activities which make these decodings possible. We are impressed with the complexity of the decoding process and we pay little attention to its development except in those cases where the decoding fails to function normally.

It seems possible that the whole complex process of decoding perceptual information is dependent upon a body of learned relationships resulting from extensive experimentation and observation during infancy and early childhood. The initial information which the child receives from his sense organs is in terms of relationships. The units of his perceptual input do him little good since they are all the same—neural impulses. He must d velop a system of relationships betwe these input units which will permit hi to reconstruct the outside reality whi gave rise to these sensory impulses.

The earliest learnings of the child a motor learnings[1] and the first body of i formation which he builds up is mot information. In developing perceptual i formation, sensory data is given meanir by matching it with the earlier develop body of motor information. It is throu this matching that perceptual informatic obtains its meaningfulness. By any oth method, two competing bodies of inform tion are developed side by side with sulting confusion between them. We ha therefore come to speak not of percept activities and motor activities but perceptual-motor activities.

If the above hypothesis is correct, follows that inadequacies and distortio in motor patterns will lead to simi difficulties in perceptual behavior. As result what the child "sees" will either restricted or will have a meaning differ from that which he experiences throu his motor behavior. In either event c fusion among perceptual data results a these confusions may have significance the very beginnings of reading.

The brain-injured child frequently h difficulty establishing an adequate rep tory of motor patterns. We do not sp here of specific motor disabilities resu ing from the neurological difficulty its but rather of generalized movement p terns which the child can interrelate i a body of motor information about world around him. Out of this body information come certain motor gener izations which are important to the int pretation of perceptual data.[2] Amo these generalizations is the concept laterality.

Since right-left relationships in sp and the lateral coordinates of space relative in outside experience, these c cepts of spatial relations must be veloped within the organism. In order develop such a concept the child m learn the difference between the ri

[1] C. S. Sherrington, *Man on His Nature*. Cambri University Press, 1951.
[2] N. C. Kephart, *The Slow Learner in the Classr* Columbus: Chas. E. Merrill, 1960.

1016

side of his body and the left side. He must learn to manipulate his bilaterally symmetrical nervous system in such a way that it gives him information as to the location of movement and activities. Through extensive experimentation with movement patterns he develops within the body a right-left gradient which permits him to locate his motor activities in terms of these lateral relationships. Gesell[3] has pointed out the importance of this learning and has indicated its complexity with his concept of "reciprocal interweaving."

Many brain-injured children fail to develop an adequate system of right-left relationships within their own organism. Two major methods of avoiding the laterality problem can be recognized by observation of behavior. In the first method the child behaves as nearly as possible in a bilaterally symmetrical fashion. Whatever he does with one side of his body he does with the other side. We can observe such problems in his gait. He sets himself on a broad base and "waddles" or "stumps" along. His gait is completely bilaterally symmetrical and a pattern on one side is followed by the exact pattern on the other side.

The second method of avoiding the problem is just the opposite. This child behaves as nearly as possible unilaterally. Any activity is entered into with a definite lead on the dominant side and wherever possible the non-dominant side does not enter at all. Many of these children, when asked to draw or write on a chalkboard, will take the chalk in their dominant hand and begin the activity. As the writing begins the non-dominant side of the body becomes completely limp and loses tonus. These children act as though, if they could, they would perform entirely with one side of the body. They drag the other side along simply because they cannot get rid of it.

Both of these behaviors indicate a failure of laterality. In the one case, the child is behaving bilaterally to avoid decisions of right-left; in the other case, the child is behaving unilaterally for the same reason. It is obvious that both types of children will show a marked restriction in the sorts of activities which they are capable of performing and which they will find it possible to attempt.

When the child has developed these spatial coordinates within his own body he can project them onto incoming perceptual data and impose spatial coordinates on outside stimuli. Such projections we have called *directionality*. The child interprets perceptual input data in terms of the directional concepts which he has developed through his own motor activity. It is only in this way that perceptual inputs can acquire spatial relationships. The child who has failed to develop the motor relationships of directionality will be observed to have difficulty in interpreting perceptual inputs in spatial terms. Thus, he will be unable to see the difference between a "b" and a "d" in his reading lesson. The only difference between these two letters is one of directionality and this child has failed to develop the relationships of directionality which he can project onto these outside stimuli. Such difficulty has frequently been called reversal. This may be a poor term since it implies that the child saw the letter correctly and for some unknown reason turned it around. It might be more accurate to say that he never saw a difference between these two letters in the first place because the principle on which this difference is based (directionality), for him, did not exist. These children are also found to be confused in interpretations of directions of movement. Thus, they are not aware of the difference between a clockwise movement and a counterclockwise movement. Hence writing becomes a problem.

As soon as the outside stimulus lies beyond arm's reach where it cannot be manipulated directly by motor activities, another problem arises. In this case the child must match the incoming perceptual data with kinesthetic and tactual information from his previous motor experimentation so that the perceptual input can be interpreted in motor terms. It is probable that this type of interpretation forms the basis for all spatial elaborations of perceptual inputs. In the case of the eye such translations raise a problem which can be observed more easily in this sense avenue

[3] A. Gesell, *The First Five Years of Life*. New York: Harpers, 1940.

1017

than in the case of some other perceptual avenues.

When the visual stimulus lies beyond arm's reach the child explores the stimulus by moving his eyes in the same way that he previously explored the stimulus by moving his hand. Hebb[4] has shown the importance of such ocular exploration for the development of counter in figures. In effect, he substitutes the movement of an eye for the movement of a hand. In order to make such a substitution he must have learned with a high degree of accuracy three skills: (1) He must know how to move the eye voluntarily. (2) He must recognize the position of the eye through the observation of proprioceptive impulses. (3) He must match the movement of the eye to movements of hand and arm. If he can match a series of proprioceptive impulses from the eye muscles with a series of proprioceptive impulses from the hand and arm, then the movement of an eye can be translated into the movement of a hand with accuracy.

Here again, however, a major problem of learning is involved. In the first place, many children have difficulty learning to control the movement of their eyes. We are aware of this problem in extreme cases where we see nystagmus or squint. It exists, however, in less obvious cases where the child cannot follow a moving object with smooth, well controlled eye movements. As he attempts to follow an object moving across his field of vision the eye moves in a series of jerks and loses the target from time to time. It is obvious that if the eye cannot be controlled, there is no basis for interpreting the proprioceptive impulses which tell us where it is pointed. Even if these two problems are solved, it is necessary to match eye movements with hand movements. In many brain-injured children this matching learning has been restricted. If such a child is asked to write on the chalkboard, for example, he may show difficulty. If he is asked to close his eyes and write, he may write with much less difficulty. It is felt that such a child has failed to learn an exact match between eye movements and hand movements.

This very brief outline may serve to suggest the importance of perceptual-motor matching and the problems which can be encountered in its development. With this basic match, the child can explore perceptually figures and objects and develop the form perception discussed by Strauss[5, 6], et. al. Certain exercises and training techniques designed to aid the child with these basic matchings are described elsewhere,[2,7] Until the development of perception has proceeded to the level of figure ground differentiation, the child's problems with reading seem obvious. For him, the marks on paper themselves, have little meaning and he finds it difficult if not impossible to manipulate them. Such marks may very well seem to him erratic, changeable, and inconsistent. It is to be expected that the symbolism behind the marks on paper would be even more disturbed. However, such problems of symbolism are beyond the scope of this paper.

[4]D. O. Hebb, *The Organization of Behavior*. New York: Wiley, 1949.

[5]A. A. Strauss and N. C. Kephart, *Psychopathology and Education of the Brain-Injured Child. Volume II*. New York: Grune and Stratton, 1955.

[6]A. A. Strauss and L. E. Lehtinen, *Psychopathology and Education of the Brain-Injured Child. Volume I*. New York: Grune and Stratton, 1947.

[7]D. H. Radler and N. C. Kephart, *Success Through Play*. New York: Harpers, 1960.

1018

326.

Vol. 10, 1965

# SEQUENCE X
# THE SPECIALIST IN READING

## A. PRIMARY LEVEL

### 1. An Instructional View of Reading Diagnosis

JAMES F. KERFOOT
Pennsylvania State University

DIAGNOSIS is the foundation of an effective instructional program in reading. Not all diagnostic approaches, however, are equally useful in classroom practice. An instructional view of reading diagnosis is one which is oriented to a specific classroom and which satisfies the following criteria:

*First,* diagnostic data should be readily translated into classroom practice.

*Second,* the material used for diagnosis should be relevant to the material and program of the individual classroom.

*Third,* reading deficiencies should be identified specifically as well as categorically.

*Fourth,* depth analysis of reading deficiency should supplement sampling techniques.

In terms of the above criteria, the individual Informal Reading Inventory (IRI) appears to be the most instructionally oriented diagnostic tool. It is a system useful to the classroom teacher and especially appropriate for the reading specialist who has access to the instructional materials within a specific school system. The IRI as described by Betts (*2*) is "simply the observation of an individual as he reads at successively higher levels of readability."

The IRI has two important values:

*First,* it can be used to determine the appropriate level of material for an individual for a particular purpose.

*Second,* it can provide the data necessary for an intensive analysis of reading difficulty.

The purpose of this paper is to present the following six additions to IRI technique.

1. A split level adaptation of the IRI
2. More appropriate standards for determining reading levels
3. Tables for rapid computation of oral and silent reading levels
4. Recommendations for selecting levels of material for various purposes
5. Recommendations for analytic diagnosis with the IRI
6. Interpretation of oral reading errors

#### Leveling

Informal inventories are used most often to determine reading levels.

#### The Traditional System

A traditional system of leveling, generally attributed to Betts (*1*), has been widely adopted. Traditional procedures utilize two selections near the beginning of each book in a reader or content series. Bond and Tinker (*3*) recommend 100 to 150 word selections. Johnson and Kress (*7*) suggest grade level variation in selection length increasing from approximately 30 to 300 words from preprimer through ninth reader.

One of the two selections is to be read orally and the other silently. Oral reading errors are to be carefully recorded by the teacher following any of several standard oral marking procedures. Comprehension of the oral reading may then be measured if desired. However, silent reading at each level is always to be followed by questions to evaluate comprehension. Both oral and silent reading are timed.

Traditional criteria are then employed to determine a child's reading levels.

1. The *independent* level is the level at which a child can read easily without assistance.
2. The *instructional* level is the optimum level for learning under teacher supervision.
3. The *frustration* level is the level at which difficulty becomes so great that the reading performance clearly deteriorates.



1019

4. The *auding* level is the highest level of satisfactory listening comprehension and is thought by Bond and Tinker (*3*) to estimate the probable capacity of the child for reading comprehension.

The assignment of levels is based on the combined performances for oral and silent reading and the observation of certain behavioral characteristics during the reading. The traditional criteria are indicated in Table I.

TABLE I

INDIVIDUAL INFORMAL READING INVENTORY CRITERIA FOR ASSIGNMENT OF READING LEVELS

| *Level* | *Silent Reading* | *Oral Reading* | *Listening Comprehension* |
|---|---|---|---|
| Independent | 90% | 99% | |
| Instructional | 75% | 95% | |
| Frustration | 50% | 90% | |
| Auding | | | 75% |

The system as described above has been in service for a good many years and has undoubtedly been of great value to teachers employing informal techniques. However, two important limitations in its use should be noted.

*First.* A number of disabled readers clearly do not fit the traditional composite categories.

*Second.* Percentage criteria are not coordinated with the number of questions asked or the number of words used.

### The Split Level System

One solution to the first problem may be the use of a *split level system.* A child who scores 95 per cent in oral pronunciation at the second grade level and 75 per cent silent reading comprehension at the fifth grade level has demonstrated instructional needs in both second and fifth grade material. Instructional levels should therefore be assigned in terms of the purposes of instruction.

Split leveling for various purposes may be illustrated by the following suggestions:

1. To develop sight vocabulary, use oral instructional level material. For unsupervised sight vocabulary practice use the oral independent level.
2. To develop word recognition skills, use oral instructional level material.
3. To develop comprehension skills use silent instructional level material. (An individual capable of understanding and manipulating ideas when reading with a minimum of familiar word cues should not be restricted in comprehension growth by reducing the ideational level to that found in material at his word or oral instructional level.)
4. To develop understandings in content areas use silent independent level material. (Content reading like comprehension development is concerned with understanding, but reading is not carefully supervised in content reading. Supervision is directed instead primarily toward content area objectives.)
5. To develop fluency use oral independent level material.
6. To correct an overanalytic set use oral independent level material.
7. For recreational reading use silent independent level material. (However, under conditions of high interest the silent instructional level might be justified.)

Independent level materials should be used when it is essential to demonstrate success or whenever the child reads without teacher supervision.

### Flexible Standards

The traditional rigid percentage criteria for leveling do not accommodate variations in the number of comprehension questions asked and the number of words per selection at successive readability levels. If the number of questions for silent reading and the number of words for oral reading are not constant at all levels, the percentage standards must be made more flexible.

Tables II and III present a revision of leveling standards to provide flexibility and facilitate rapid computation of reading levels.

## Analysis

A second important use of the informal reading inventory is the analysis of reading behaviors to determine areas of strength and weakness and the nature of instruction needed. Informal analysis provides the following types of data:

1. A record of errors made in oral reading
2. A record of silent reading compre-

1020

TABLE II

CRITERIA FOR RAPID COMPUTATION OF SILENT READING AND AUDING LEVELS BASED ON THE NUMBER OF COMPREHENSION QUESTIONS

| | *Number of Questions Asked* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Independent Level # correct | 2 | 3 | 4 | 5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 |
| Instructional Level # correct | 1 | 2 | 3 | 4 | 4 | 5 | 5-6 | 6-7 | 7-8 |
| Frustration Level # correct | 0 | 0-1 | 0-2 | 0-3 | 0-3 | 0-4 | 0-4 | 0-5 | 0-6 |
| Auding Level # correct | 1-2 | 2-3 | 3-4 | 4-5 | 4-6 | 5-7 | 5-8 | 6-9 | 7-10 |

hension errors

3. A record of rates for oral and silent reading
4. A record of observed behavioral characteristics

TABLE III

CRITERIA FOR RAPID COMPUTATION OF ORAL READING LEVELS BASED ON THE NUMBER OF WORDS PER SAMPLE

| Number of Words per Sample | Independent Level 99%-100% | Instructional Level 90%-98% | Frustration Level Below 90% |
|---|---|---|---|
| | *# of errors* | *# of errors* | *# of errors* |
| 30 | 1 | 2-3 | 4-30 |
| 40 | 1 | 2-4 | 5-40 |
| 50 | 1 | 2-5 | 6-50 |
| 60 | 1 | 2-6 | 7-60 |
| 70 | 1 | 2-7 | 8-70 |
| 80 | 1 | 2-8 | 9-80 |
| 90 | 1 | 2-9 | 10-90 |
| 100 | 1 | 2-10 | 11-100 |
| 110 | 1 | 2-11 | 12-110 |
| 120 | 1 | 2-12 | 13-120 |
| 130 | 1 | 2-13 | 14-130 |
| 140 | 1 | 2-14 | 15-140 |
| 150 | 2 | 3-15 | 16-150 |
| 160 | 2 | 3-16 | 17-160 |
| 170 | 2 | 3-17 | 18-170 |
| 180 | 2 | 3-18 | 19-180 |
| 190 | 2 | 3-19 | 20-190 |
| 200 | 2 | 3-20 | 21-200 |
| 300 | 3 | 4-30 | 31-300 |
| 400 | 4 | 5-40 | 41-400 |
| 500 | 5 | 6-50 | 51-500 |

## Oral Reading Analysis

The information obtained from analysis of oral reading can have great diagnostic value. Oral analysis is essentially a search for significant error patterns. The following considerations may be helpful to teachers in interpreting informal oral scores:

1. *Omission of Words.* An excessive number of word omissions is characteristic of an individual who is an effective context reader (if the omission does not result in a meaningless passage). Attention may be directed more to content than to word form. Omissions of this type are common among good adult readers. However, if the passage is made senseless by word omissions a visual problem might be suspected. Children have been known to omit whole lines through inefficient eye movement control.

2. *Addition of Words.* The addition of words may also result from overreliance on context. Both additions and omissions are suggestive of a reader who relies more upon context than word form clues.

3. *Omission and Addition of Word Parts.* Word part additions and omissions are generally included in a positional analysis with all other word part errors. However, it is useful to know whether an excessive number of terminal errors, for example, results from a lack of knowledge of terminal parts or habits of inattention to terminal position in a word. The omission and addition of word parts are suggestive of faulty positional set.

4. *Repetitions.* Repetitions generally suggest difficulty in identifying the word following the repeated passage. Repetition then becomes an attempt to recapture context as an aid to word recognition. Awareness of error can also lead to repetition as the reader regresses and repeats in order to make the correction. Repetitions can result, too, from the loss of context due to ineffective eye movements.

1021

5. *Mispronunciations.* Mispronunciations provide valuable information for several types of analysis.

a. *Positional analysis* may indicate patterns of error in initial, medial, or terminal positions within a word.

b. *Inversion analysis* may reveal a lack of consistent directionality as indicated by full word reversals, partial word reversals, and axial rotations of individual letters.

c. *Phonetic proportion analysis* can indicate the percentage of mispronuncation errors which are phonetically reasonable.

d. *Phonetic category analysis* can also reveal a tendency toward errors of a particular element type, e.g. vowel, consonant, blend, digraph, etc.

e. *Specific phonetic analysis* can make the teacher aware of deficiencies with particular phonic elements, e.g., *ou, str, ing,* etc.

f. *Semantic analysis* determines the proportion of mispronounced words which are contextual substitutions and furnishes additional information on the attention given to word form cues.

g. *Gross and partial mispronunciation analysis* reveals the extent of word analysis deficiency but adds little to the information obtainable from positional and total mispronunciation scores.

6. *Substitutions.* Substitutions are evaluated in the semantic mispronunciation analysis. Substitutions can be easily identified among mispronunciation errors and probably do not justify a separate marking during the test administration.

7. *Hesitations.* Hesitations indicate words which have not yet been mastered as sight vocabulary. Identification of a word following hesitation suggests some facility with word analysis.

8. *Refusals.* Refusals identify those words which are neither in the child's sight vocabulary nor within his word recognition capabilities. Refusals, therefore, provide the teacher with some specific instructional content.

9. *Self Corrections.* Self corrected words indicate a lack of precision in word perception accompanied by effective use of context, since a breakdown in meaning is followed by an immediate search for error.

10. *Contractions.* The recording of contractions is of little diagnostic value except perhaps as an additional suggestion of contextual skill.

Through careful interpretation of the various oral error types, significant error patterns can be determined to identify instructional needs.

### Silent Reading Analysis

The silent reading sections of the IRI have been used primarily for leveling purposes. Limited diagnosis is afforded by comparing comprehension and word recognition skills. A far more useful diagnosis of comprehension can be provided by selecting comprehension questions to represent different abilities. While several types of comprehension could be evaluated, a minimum selection should perhaps include general significance, detailed recall, and interpretive ability. Consistently deficient performance on any of these question types would suggest either a lack of ability in that type of comprehension or an interfering set. When a weakness in comprehension has been observed, teachers should follow up by directing children to read for that specific purpose. If set is the problem, the performance should improve significantly. If not, the child may be "specifically retarded" (3) in comprehension.

### Rate Analysis

Both silent and oral reading are timed. Rate analysis involves the comparison of silent and oral rates at increasing levels of difficulty.

An effective reader may be expected to perform more rapidly in silent than in oral reading. One factor contributing to this difference may be decreasing dependence upon subvocalization in the silent performance. A second factor resulting in a superior silent rate performance may be the reduction of precision pressures, and anxieties which accompany oral sight reading. A third factor may be the tendency for the reader to skip difficult words altogether and depend heavily on context skills.

When oral reading rate surpasses silent reading rate, we may suspect that the reader is getting little meaning from the selection and likely pronounces each word subvocally during the silent performance. The word by word reader may do better in oral

1022

reading through the addition of vocal-auditory clues. In fact, the addition of vocal-auditory clues may be necessary for some children in order to maintain meaning. This would be particularly true at extremely slow rates.

### Behavioral Analysis

A check list of behavioral characteristics is frequently used to support judgments concerning appropriate levels of material. Certain classes of behavior may also have diagnostic significance. Careful observation of the child's behaviors during silent and oral reading can contribute to the following four types of analysis:

1. *Meaning Analysis.* Expressive reading is suggestive of good comprehension. While word by word reading suggests meaning deficiency. Vocalization and subvocalization, head movements and finger pointing may identify a low-meaning, high-word conscious reader. Expressive reading is characterized by good rhythm, phrasing, observation of punctuation, conversational style, etc.

2. *Attitude Analysis.* Some children respond to the reading task with high interest and marked persistence in the face of difficulty. Others demonstrate a clearly negative response, refusing in some cases to begin or to continue the test.

3. *Anxiety Analysis.* Among the characteristics suggestive of anxiety in the testing situation are voice strain or timidity, postural and/or facial contortion, and hyperactivity in many forms.

4. *Word Attack Analysis.* The reader's attack on unfamiliar words should be observed in terms of his tendency toward spelling, letter by letter sounding, syllabicating, guessing, etc.

### Word Lists

Word lists should be considered essential components of an informal reading analysis. Both basic and graded lists can be profitably employed.

*Basic Lists.* Basic lists of high frequency words such as those compiled by Dolch (*5*) and/or Fry (*6*) can be easily administered. Errors on word lists can provide additional information for mispronunciation analysis as well as identifying specific sight word needs.

*Graded Lists.* Grade placement of word knowledge can be determined by randomly selecting 20 to 25 word samples from each level of the material used for instruction. Botel (*4*) places the frustration level at 70 per cent for isolated words. Graded lists of common vocabulary can be obtained, but an instructional view suggests the advantage of the former sampling technique.

Clearly, much diagnostic information of instructional utility is available to the teacher through the use of informal procedures. Intensive analysis of the child's reading behaviors can be most profitable when diagnosis involves his actual instructional material, and when observation is systematic at "successively higher levels of readability."

### References


1. Betts, E. A. *Foundations of Reading Instruction.* New York: American Book Co., 1946.
2. Betts, E. A. *Handbook on Corrective Reading.* Chicago: Wheeler Publishing Co., 1956.
3. Bond, G., and Tinker, M. *Reading Difficulties, Their Diagnosis and Correction.* New York: Appleton-Century-Crofts, Inc., 1957.
4. Botel, Morton. *Guide to The Botel Reading Inventory.* Chicago: Follett Publishing Co., 1961.
5. Dolch, E. W. *Better Spelling.* Champaign: Garrard Press, 1942.
6. Fry, Edward, "Developing a Word List for Remedial Reading", *Elementary English,* 34 (November, 1957).
7. Johnson, M. J., and Kress, R. A. *Informal Reading Inventories.* Newark, Del.: International Reading Association, 1965.

327.

Vol. 10, 1965



## B. UPPER ELEMENTARY LEVEL

### 1. Diagnosis: An Interdisciplinary Approach

ROY A. KRESS
Temple University

SUPPORT for a multiple-causation theory of reading disability has been general for many years. Unfortunately, however, general acceptance of the theory has not always led to action which reflects its basic premise, even in so-called reading clinics administered by college and university personnel. A recent review of the reports of diagnostic practices in effect in many such clinics indicates the total time consumed in a "diagnosis" is often only one or two hours. Too frequently "clinical diagnosis" of a child's reading problem begins and ends with testing to evaluate his performance in reading. No real attempt is made to ferret out the causes of the disability beyond the level of "because he can't read very well, he has a reading problem." In other cases, certain selected factors are also investigated (perhaps vision or hearing) while others (possibly intelligence or emotional status) are, for all practical purposes, ignored. In either case, the result is a gross misrepresentation of a thorough diagnostic study and cannot promote effective planning of an adequate treatment program for the child.

#### Areas of Evaluation

The measurement of *reading performance* itself must, of course, be a part of any clinical evaluation of a reading problem. Out of this must come, however, not merely a comparison of the child's achievement with that of others of his age or grade, but also a determination of the levels at which he is operating in reading, how these compare with the potential levels indicated and the particular strengths and weaknesses evident in his performance. To obtain this kind of information requires a highly trained clinician capable of observing accurately and objectively the child's performance as he deals with materials at varying levels of difficulty.

Along with the testing in reading specifically, there should be evaluation of the child's achievement in other academic areas, both for purposes of comparison and to provide some indication of the over-all instructional possibilities. Particular attention should be given, of course, to his functioning in other language areas —listening, speaking and writing. However, his handling of number concepts and computation would also be important in assaying the total picture of academic achievement.

Further information about his school achievement should be obtained as the *case history* is taken. Two significant aspects of this information about his learning problem must be taken into consideration. First, in obtaining a description of the presenting problems, the view of the parents, the child himself and the school should be considered for any important similarities and differences. Second, information about his functioning in a group of his peers, usually not observed during clinical diagnosis, can be obtained and added to the total picture. The usual case history information covering birth, developmental and medical factors, family background, environmental conditions and the record of previous special examinations and services should obviously be obtained. A carefully detailed history provides the setting for interpretation of the test data and other related information obtained in a diagnosis.

*General capacity* information serves as a check point for evaluation of the adequacy of the child's achievement level. Is he doing as well as he could be expected to do? This question can best be answered from the information obtained when an individual intelligence test of the type which is least affected by the reading ability of the child is administered by a trained psychologist. Estimates of a child's true potential for academic functioning are possible from such a test when the examiner has also been trained in the interpretation of the interrelationships observed between various sub-tests and in the analysis of specific responses. Only when this kind of information is available

1024

can any real decision be made about the degree of the child's retardation in reading.

Certain *specific capacities* should also be measured. Because reading is a process of using previously formed associations between language and experience, the child's performance in associative learning tasks should also be considered. His memory span for different types of materials and various modes of presentation should be evaluated. His hearing comprehension ability for oral language may give further indication of his current capacity for learning to read and must be considered.

*Visual and auditory functioning* are important factors which cannot be ignored. The clinician must be trained to administer screening examinations in these areas so that problems related to the disability and/or to progress in any instructional setting will not be omitted. His observations should form the basis for referral to specialists in these areas. It is not his job to prescribe or even to decide finally on the presence or absence of a problem. Instead, it is his responsibility to refer to and work cooperatively with the specialist who can truly diagnose the problem and recommend treatment. This specialist may have significant ideas and techniques to contribute to the instructional program as well as to understanding the etiology of the child's problem.

*General health* influences an individual's performance and should certainly be at the highest level possible if his learning activities are to be successful ones. Observations made in the course of the evaluation, as well as information from the case history and medical records, should be used as part of the total diagnostic picture. Again, the clinician's function is not to diagnose medical problems, but rather to pick up any signs of possible need for referral. Gross symptoms of abnormal health status, specifically in areas of neurological or endocrinological functioning, for instance, might be significant. Here, as in the areas of vision and hearing, the clinician should work cooperatively with the specialist(s). Ideally, a clinic should have such personnel retained as members of the diagnostic team, or specific arrangements set up by which a child can be examined by the appropriate medical specialist(s) as an integral part of the diagnostic study.

*Perceptual functioning* has been receiving increasing attention as a factor in reading achievement. Perceptual-motor development should be appraised. Many approaches to this measurement are possible, some of which are well within the grasp of a trained clinician. Others would require that a specialist, more specifically trained in the measurement of perceptual-motor functioning become involved in the evaluation.

*Emotional status* is an essential factor influencing a child's learning efficiency. Thorough evaluation in this area is critical to the understanding of any reading disability. Here, the clinician must either have had significant training as a psycho-diagnostician or the cooperation of a clinical psychologist and/or psychiatrist must be enlisted as a routine part of the evaluation. Although the reading clinician can make many pertinent observations of a child's current emotional status, a complete evaluation usually requires more than he could reasonably be expected to carry alone.

## Differential Diagnosis

The reading clinician is primarily concerned with three significant tasks in the evaluation of a case of reading disability. First, he must try to identify accurately the total constellation of causal factors which appear to have resulted in the reading problem. Second, he must be concerned with all of the characteristics of the problem as it currently exists and any underlying causal factors which may still act as a deterrant to the acquiring of acceptable reading habits and skills. Third, he must communicate to all persons involved (parents, child, teacher and specialist(s)) an understanding of the problem and of the specific techniques to be employed in the program designed to effectively correct or remediate the difficulty. In carrying out each of these tasks he is likely to need, in addition to that which comes from his own province, information and perhaps clinical knowledge which can be contributed only by personnel from other professional disciplines. Thus, the psychologist, neurologist, psychiatrist, pediatrician, ophthalmologist, audiologist, optometrist, endocrinologist,



1971

and the social worker may all contribute directly or indirectly to the completion of a given reading evaluation. Contributing individually, or as active members of a team, they aid the reading clinician in arriving at a comprehensive, integrated evaluation—a differential diagnosis—of the reading problem. Further, they contribute directly or indirectly to the recommended program for remediation or correction; and finally, to opening the doors for profitable inter-disciplinary research into the nature, causes, and treatment of reading disabilities.

1025

328.

Vol. 10, 1965

# SEQUENCE IX
# CLINICAL ASPECTS OF READING

## A. PRIMARY LEVEL

### 1. Early Diagnosis of Reading Disability

DOROTHY M. LAMPARD
University of Alberta
Edmonton, Canada

A RECENT study based on longitudinal studies of general achievement,[1] reading comprehension, and vocabulary development concludes that by the age of six a child has attained one-third of his general learning pattern and by age nine one-half of the general achievement pattern he will exhibit at age eighteen. If this is a valid statement it behooves teachers to check preschool development carefully and to initiate early diagnosis of learning and reading problems in the primary grades before the achievement patterns are established.

Accumulatory evidence suggests that the syndrome of reading disability is observable in the early school years. It also follows that the earlier these symptoms are detected the more effective will be the cure.

#### Reasons for Early Diagnosis

Many hours have been spent on remedial teaching, and often some immediate gain has resulted, but rarely have the long term effects been evaluated. Lovell[2] has recently reported some studies of this type in Britain. He found little evidence to support that either the frequency of tutoring or the duration of remediation had positive long-term effects on achievement. Lovell[3] then turned to an examination of cognitive development and reading problems. He matched his good and poor readers on non-verbal intelligence scores, sex, social class, and school. A series of individual tests was administered. These included an oral language test to assess the basic varieties of the English sentence, a sentence copying test, tests of left-right discrimination, Piaget type tests of spatial relations, a test of rotation effect, and the following sub-tests of the WISC, the vocabulary, block design, object assembly and coding. Those who failed to benefit from remediation had deficits in vocabulary, spatial relations, left-right discrimination, sentence copying, and rotation effects in copying abstract designs. Confirmation of Lovell's findings is to be found in the research of an American team, Silver and Hagin.[4] They re-examined a group of young adults who had attended the Bellevue Mental Health Clinic and had had reading problems as children. They found that organic reading disability types retain perceptual difficulties even as adults, while the developmental types recover partially and adopt cues which enable them to deal with temporal and spatial problems.

Thus there is considerable evidence that present remediation is rarely afficacious in the long haul and that learning disabilities tend to persist, particularly those perceptual and cognitive abilities most closely connected with languages.

There is, however, some indication that though the problem has proved intractable in the past, working through the cognitive aspects of language may hold some hope of success. M. D. Vernon[5] suggests "there must exist some failure in reasoning related to the use of language which precludes these children from analyzing the

[1] Benjamin S. Bloom, *"Stability and Change in Human Characteristics."* New York: John Wiley & Sons, Inc. 1964.

[2] K. Lovell, C. Byrne and B. Richardson, "A Further Study of the Educational Progress of Children Who Had Received Remedial Education," *British Journal of Educational Psychology*, XXXIII (February, 1963), pp. 3-9.

[3] K. Lovell, D. Shapton, and N. S. Warren. "A Study of Some Cognitive and Other Disabilities in Backward Readers of Average Intelligence as Assessed by a Non-Verbal Test," *British Journal of Educational Psychology*, XXXIV (February, 1964), pp. 58-64.

[4] Archie A. Silver and Rosa A. Hagin, "Specific Reading Disability: Follow-up Studies," *American Journal of Orthopsychiatry*, XXXIV (January, 1964), pp. 95-102.

[5] M. D. Vernon, "The Investigation of Reading Problems Today," British Journal of Educational Psychology; xxx (June, 1960), pp. 146-154.



1026

A3. analysis of tests which could aid teachers and clinicians in early diagnosis. Tests which assess general language development are vital for it is now apparent that the greatest lag occurs in this area for the majority of retarded readers.

If such a program could be implemented, reading clinicians would be left with only severe cases of developmental lag or organic dysfunctioning.



printed words . . ."

## Early Recognition of Symptoms

Three major categories of symptoms seem to be evident: clinical patterns, perceptual patterns, and patterns of association and language learning.

Two studies at the University of Alberta,[6] indicated some symptoms which both classroom teachers and clinicians might check. The study which analyzed the referrals to the University of Alberta Reading and Language Centre over a period of three years revealed that the majority of the subjects had (1) a history of failure, (2) physical disability factors which were present in the pre-school years, (3) immature aptitudes.

Many children had above normal hearing acuity and experienced difficulty discriminating sounds and blending them.

Though word recognition problems predominated there was evidence that decoding difficulties connected with language expression were apparent. This difficulty appeared to stem from their inability to mediate or internalize their knowledge of sounds or meanings in order to decipher new words or generate new meaning.

The second study[7] investigated the perceptual performance of twenty-three severely retarded readers to determine which tests, standardized or informal, might be used to screen reading disability cases. Although individual performance varied greatly, a group pattern was revealed. The Monroe-Sherman Aptitude Tests and the Gates Associative Learning Tests were the best indicators. In addition, the lack of ability to recognize word endings and an inability to coordinate visual and kinesthetic tasks were evident. Both of these symptoms could be recognized by an astute teacher.

As so many children exhibit this inability to use language in their learning, at the University of Alberta Centre we have recently attempted to diagnose this using informal tests, one an adaptation of the Binet vocabulary test and the other a verbal problem, the solution of which is written. The definitions are classified according to type and level of complexity. The child who has a limited use of words will have low conceptualization and will be limited in his ability to go beyond the information to make generalizations.

Though many of these suggested procedures have been used first in a clinical situation, they could be readily adapted by teachers.

## Implications for Diagnosis

From the foregoing it is evident that for early diagnosis three areas must be covered.

*Preschool Testing.* The pediatric department of the University of Alberta hospital has developed a pattern of examination to detect physical, emotional, social, and mental problems of preschool children.

Sensory-motor development, language deprivation, lags in social, emotional, and mental development would not only be indicated but attempts would be made to remedy them through the provision of special classes in both nursery and kindergarten.

*Primary Grade Diagnosis.* As readiness tests have a fairly high validity it would seem feasible to take the lower quartile who may be potential disability cases and give them further tests. Those tests which have the most predictive value appear to be the language tests of vocabulary meaning and concept development, spatial relations, left-right progression, copying words, and rotation effects in copying abstract designs. An individual intelligence test presents data for analyzing linguistic abilities, a Bender Gestalt (group) for estimating rotations and left-right progressions, and a discussion of a picture could give evidence for estimating the reasoning ability and language development. The low scorers on these tests could then be grouped so that they might be given special attention. After three months, or at the end of the primer period, other children who were having difficulty could be isolated for help with provision for a further assessment at the end of the year.

*Screening Devices.* Though many tests exist, there is still a need for experimentation with test items and methods of

[6] B. D. Paulson, "An Analysis of the University of Alberta Reading and Language Centre Clinical Cases." Unpublished master's thesis. The University of Alberta, Edmonton, Canada, 1964.

[7] E. Bradshaw, "Patterns of Perceptual Performance in Children who are Severely Retarded in Reading." Unpublished master's thesis. The University of Alberta, Edmonton, Canada, 1963.

329.



Vol.7, 62

# 6. The Flexibility Hypothesis in Reading and the Work of Piaget

FRANK LAYCOCK

The mark of a good reader, one who has gone beyond the initial stages, is the ability to control his reading. Some readers do not reach this point, although they are perfectly able to comprehend print. That is, they can read in the sense of discovering what the words have to say, but they do not go about the task efficiently. Since there are so many kinds of reading, each to be approached in its own best way, the reader who can decide quickly what a given passage requires has the advantage. It is a handicap to spend as much time plodding through a trifling story in a magazine as in mastering a technical article, or to scan for a stray fact with the same care as to check a telephone number.

For several years I have tried to find out why some readers develop so much more flexibility than others. In a series of investigations of several hundred persons, from elementary school and from college, I used change in reading rate as an indicator of flexibility. From among readers who could comprehend well, I selected those who could change pace readily and those who could not. Then I sought other characteristics associated with this flexibility or rigidity.

The differences between the two kinds of readers seem to be of two sorts. The first pattern is "peripheral": flexible readers had finer control of eye movements, quicker reaction time, smoother progression along a line of print. They displayed this superiority not only when reading prose but also when going through lines of numbers arranged like words but devoid of content. Less flexible readers reacted more slowly and moved more haltingly, whether contending with meaning or not. The second pattern is "central": flexible readers took in more words at a fixation, grasped ideas more quickly, caught small differences in detail more accurately, and solved a series of problems better. For this last, they took the Luchins "Water Jar Test," in which it is necessary to figure out how to use various sizes of jars to get specified amounts of water. The test leads persons to use one solution several times and then requires an abrupt change. Flexible readers tended to alter their solution as easily as necessary; less flexible ones to persist unsuccessfully.

Some important questions are still to be answered in this particular research. It is not clear how critical the constitutional characteristics are in helping or hindering motor control. Changing rate is not the same as shifting from, say, prose to poetry. There probably are many specific facets to flexibility—as clinicians studying personality development believe — rather than one inclusive trait. But, more generally, to understand flexibility in reading, and perhaps to derive a theoretical model for it, require that one examine how a person comes to a decision about an ambiguous situation. In reading, this question is implied over and over again: "How should I discover the meaning in this passage?" The data I have gathered so far suggest that a rigid reader habitually uses a single approach that he has come to rely on. In fact, he uses it so regularly that he seldom, if ever, asks himself beforehand how he is going to read. But where a passage is such that he clearly should change, he may

1028

persist, nonetheless. It may be because his constitutional equipment permits little alteration, or because he does not recognize the appropriateness of change, or because he cannot permit himself the risk of trying something strange.

Jean Piaget's probing into children's intellectual growth has uncovered certain trends that may fit this problem of flexibility and rigidity. He and his collaborators have concentrated upon how children learn the increasingly abstract relationships among the objects and experiences they meet. By preference Piaget has studied this development primarily in the realms of mathematics and science. It is possible, I believe, to adapt some of his ideas to the more central aspects of reading flexibility, where interpretation and set are involved, to explain what a reader does when he has to decide how to read a given passage.

First, there is the basic transition from the stage of "concrete operations" (during the period from about seven to twelve years of age) to that of "formal operations" (from about twelve to fifteen). Operations, to Piaget, are the ways in which children work out order in their world. At first by direct manipulation of objects, later by substituting words or other symbols for the objects, and finally by organizing and internalizing abstract cues, they go from the very immediate to the distant and hypothetical. *Concrete* operations are the earlier tools, when children sense an order in the immediate world and combine their experiences by noting correspondences and differences. They can read, for example, about this world and move about among the ideas that reading brings. *Formal* operations involve hypothetical reasoning, based on other possibilities than those from personal experience. Reading, of course, serves both concrete and formal operations, but a reader gains the greatest freedom when he can move out and away from his own experiences or from the immediate text he is reading.

Second, there are Piaget's specific mechanisms of conservation, reversibility, and transitivity. A child employs conservation when he notices that something retains certain properties amid change. For instance, a lump of clay does not partically disappear when somebody flattens it out. Reversibility permits an operation to go forward or backward. Thus, in adjusting a balance scale, one adds or removes weights from either pan, all in pursuit of equilibrium. Transitivity requires that one note similarities indirectly and in new combinations: if A=B, and B=C, then A=C. All three of these skills Piaget found in children under twelve, but they came under fine and complete control only later.

As applied to flexibility in reading instead of to mathematical or scientific reasoning, these concepts merge into a potential hypothesis. To be flexible, it is necessary to realize that an author's idea can be put into more than one form, that a given passage can serve various demands, that "reading" is more than an unvarying procession from one word to its neighbor. Reading is "operational" in the sense that words are recognized and classified according to their appearance or sound, then later according to what they mean, and finally when the ideas themselves can be manipulated apart from the specific words employed. In reading, conservation might occur when in one passage a reader recognizes an idea from another, earlier one. Conservation can be reversible, when one moves back and forth among contexts or earlier passages to settle exactly on what is required for comprehension. By transitivity one links ideas or passages across intervening ones, as when synthesizing historical analogies or reading a story in different stylistic forms.

The inflexible reader would then be the person who—in addition to whatever muscular or ocular inefficiencies may hobble him—cannot respond to continuity in ideas, to the similarities that survive variation. He is the person, perhaps, who cannot think of reading as something applied to other ideas "out there." He is tied to the immediate symbolic scope of the words at hand, unable to detach himself from them or rearrange them. It may even be that, out of fear, he refuses to detach himself from his habitual reading pattern. He stays at a familiar, but immature, level in order to protect himself from the uncertainty of the new.

Thus, the transition from concrete to formal operations in Piaget's problem-solving may be likened to the abandonment of slavish devotion to every printed word in sequence. By moving freely among them in search of an underlying or elusive idea, one may sometimes skim, and at other times note the sound or reflect upon inconsistencies. Most readers graduate into flexible reading patterns, just as most children in Piaget's research pass from the concrete to the formal, and learn to handle reversible and transitive operations. But one cannot compare Piaget's pupils directly with flexible and inflexible readers because he has not presented evidence about the different ways children proceed, some readily and others haltingly, through the typical stages. And in particular Piaget has not studied children who—like inflexible readers—prefer to stay on in the familiar world of concrete operations. More systematic attention to individual differences during Piaget's stages might uncover patterns that could explain the persistence of inflexible habits in many otherwise competent readers.

330.

Vol. 8, 63

# PART II Sequences

## A. Reading in the Elementary Grades

### 1. Organizing Instruction to Prevent Reading Disabilities

EVE MALMQUIST

A LARGE number of research workers have stated, on the basis of their experimental studies, that reading disabilities are very seldom due to only one single cause. It is maintained that the occurrence of special reading disabilities is, in many cases, dependent upon a complex of factors which are intimately interrelated and are frequently difficult to separate.[1] In this connection it has been asserted that, in the majority of cases of special reading defects, there are good prospects of exerting an influence in a positive direction. At times this may be done to a very considerable extent. At any rate, reading disabilities are considered more remediable than is indicated by the fateful term "congenital wordblindness" which is still used in medical circles, at least in Europe, in a misleading way.

In our remedial reading classes and reading clinics many teachers are performing excellent work entailing considerable self-sacrifice in attempting to heal the often markedly disharmonious personalities that accompany reading disabilities.

The ideal condition would naturally be, however, to *forestall and prevent* the occurrence of special reading disabilities.

How can this be done?

Improvement of ordinary classroom teaching would, from my point of view, diminish the number of reading disability cases.

#### Diagnosis of the Child's Developmental Stage When Entering School

One of the necessary conditions for this is that we should be in a position to diagnose satisfactorily a child's qualifications for learning the elementary reading functions before he starts school. Another necessary condition is that it should be made possible for teachers in the beginner's classes to take into consideration the stage of development in different aspects of each pupil from his very first day at school.

Certain demands are made from beginners when they start school. In order to be able to meet these a child should have reached a certain developmental level, a certain minimal degree of maturity and experience. Or to use another term—the child should have reached the stage of readiness for school.

#### School Readiness a Relative Concept

It should be realized, however, that school readiness is a relative concept and does not imply any absolute, invariably fixed norms. This general and highly composite concept implies a certain level of development not only from an intellectual standpoint, but also as regards bodily, social, emotional, and motor development. The concept of school readiness should be considered in terms of the requirements of learning and adaptation which the school makes in the first year curriculum for beginners. The age at

[1] As for definitions of the concepts reading disabilities and special reading disabilities see Eve Malmquist, *Reading disabilities in the first grade of the elementary school*. Uppsala, Sweden; Almquist and Wiksell, 1958.



1030

which children start school is of great importance when determining the requirements for school readiness.

## Beginning Age, Methods and Material Used in Primary Reading

In my native country, Sweden, the children start school at seven years of age as they do in the other Scandinavian countries; England and U. S. A., as you know, start their children one or two years earlier. This must naturally influence the organization of instruction in school and the aims of primary teaching. It is important to know the number of pupils in a class if you are to decide if the child is ready for school or not. Evidently, other things in the educational situation being equal, the child must have reached a more advanced development stage to succeed in reading in a class of 36 pupils than in a class of 12 or 13 pupils.

Furthermore, these requirements of school readiness will depend, e.g., on the competence and experience of the teachers and the nature of the instructional material, and on the methods used in reading.

The extremely significant work of laying the first foundation in learning to read, write, and count is given prominent importance during the first years of school. Consequently it is natural that an attempt is made to differentiate from the general concepts of school readiness those factors which are of special significance for each of these subjects, and also to determine the possible existence of specific maturity factors of these subjects. The great majority of the investigations of this kind deal with the problem of reading readiness.

## Some Reading Readiness Factors and How to Evaluate Readiness for Beginning Reading

I will briefly mention some factors which are to be taken into consideration when deciding if a child is to be considered ready for school and also how to evaluate readiness for beginning reading: (1) Physical development. Especially important is that some modern tests of vision and hearing are included in the testing program together with a general medical examination; (2) Visual perception; (3) Auditory perception; (4) Intelligence; (5) Language development; (6) Emotional and social maturity; (7) Previous experiences, background concepts and relevant knowledge of letters, and reading ability.

Before the beginning of the first grade every child ought to be given some intelligence test and a battery of reading readiness tests.

The predictive value of the reading readiness investigations may be increased by using informal teacher observations and ratings of those variables concerned and some informational data about the child's preschool development gathered from kindergarten teachers and parents.

An appropriate use of the results of these tests, ratings, and interviews may be of considerable help for the teacher in striving to discover the specific needs of individual children. Even if the majority of children might be ready to be taught reading when they start school, there are always some who, for different reasons, have not reached the desired reading readiness level. It is considered unrealistic to expect that these children will make normal progress in reading. Whatever the reasons are for their lack of readiness the school must let them get a calm and cautious start in reading. Otherwise, these children run a big risk of becoming "failures" and of getting a lifelong dislike of reading. Before the regular teaching of reading starts, children must get the opportunity to go through a good reading readiness program suited to their special shortcomings learned from reading readiness investigations.

## Individual Differences Between and Within Children

Children of the same chronological age differ widely in capacity to learn, intelligence, background experiences, and all kinds of personality traits. Research workers all over the world are in agreement on this. The need of organizing instruction to provide for these needs is therefore evident and urgent.

My own investigations of first grade children in Sweden discovered a range

from four years and eleven months to eleven years and eight months in mental age, while differences between the children's chronological ages were very small.

The deviation within the same class of other variables is equally extensive.[2]

It must be wrong under such circumstances to teach all children on the assumption that all need the same teaching. Most teachers recognize these great differences *between* children and *within* children as to various capacities, background experiences, personality traits, etc. But nevertheless they often, at least in my home country, seem to strive intensively to get all the pupils in the class up to established norms. This main goal of the teachers is necessarily of little satisfaction and stimulation for the bright pupils and too frustrating and unrealistic for the very slow ones in the class. More and more teachers therefore try to find a solution by letting children on about the same reading level form separate working groups during a minor or greater part of the time which is assigned to reading exercises.

## Grouping Procedures When Teaching Reading in the Elementary Grades

1. There are still, however, many teachers who keep all the children in the class together as one large group. All children use the same kind of basic reader at the same time and at the same speed, fixed by the teacher, during the instructional periods of reading. Neither the fast learners nor the slow learners will profit from a constant classroom organization like this.

2. In order to make the teaching of reading in the elementary grades more efficient and adjusted to the various needs of the children some kind of grouping is recommended. As I understand, some kind of three-group system is at present very commonly used in the U. S. A. To each group children of about the same learning ability are assigned.

3. Much enthusiasm has been expressed by some researchers and teachers for a method involving a highly individualized approach in teaching reading. Each child gets a book or some other kind of reading material adapted to his learning level and his interests. Each child is self-active, working intensively by himself. The teacher circulates around the room and tries to help anyone who wants help or the child who needs special assistance.

## Limits of the Usability of Individualized Reading Instruction in the First Grade

This latter method seems to be an ideal one. But in practical reality we have found it very hard to get it to function. In the first grade many children, at least in my country, seem to be too immature to be able to do independent work for as long periods as is desired, if the teacher is to teach other children individually.

Each child in the beginning stages of reading needs, almost continuously, some kind of guidance by the teacher.

As the reading ability of the children increases there will be better possibilities for successful use of highly individualized reading instruction. There are also other limits for the efficient use of this method, noted in my country: too many children in the classroom (in Sweden maximum 25 in the elementary grades) and shortage of reading materials suited for the great variety of reading levels in any classroom.

In Sweden the teachers are nevertheless striving to individualize instruction. But they do it in connection with grouping procedures.

## A Four-Group System Commonly Used in Sweden

According to a recently passed Education Act in Sweden (1962) the number of pupils in the elementary grades (1-3) shall not exceed 25 (formerly the maximum number was 30 pupils).

In a Swedish first grade the pupils have to attend classes for 20 hours a week. If the number of pupils in the class is above 15, the class is split. This means that the teacher teaches groups of not more than 13 pupils at a time and often the class

[2] Eve Malmquist, *Barnens kunskaper och färdigheter vid skilgangens början* (Children's knowledge and readiness for beginning school). Skolöverstyrelsen, Sweden: Kungl, 1961.

1032.

ranges from eight to ten pupils. Each half of the class is commonly split into two groups, so that in all we have four groups of the class. But we don't like to have these groups within the class halves fixed for any kind of reading instruction. Flexible grouping is used to achieve different teaching aims.

Another essential prerequisite for good teaching to prevent reading disabilities is that reading material will be found readily available. If we are not able to meet a variety of individual needs and interests in this respect, we are apt to fail to reach our goal. There ought to be in each classroom a rich collection of good books on various levels of difficulty with a wide range of interests for use in school or for recreational reading at home. An abundance of supplementary books and reading materials must also be available in the school library and the public library in the neighborhood.

Although we are offering good programs we still, nevertheless, find cases of reading disability. These need more individual help than the classroom teacher is able to give. For these children there ought to be special assistance either in a reading clinic or in a remedial reading class as early as possible.

## Summary

From my point of view, in a well organized reading program the teacher should make use of more than one way of organizing the class for reading instruction. A combination of different procedures—where there is also a place for whole-class teaching—will be a more realistic approach to organizing reading instruction than the exclusive use of either whole-class reading, group reading, or individualized reading.

The teacher must constantly watch for possible reading problems as they arise. This is one of the teacher's important responsibilities. For a modern teacher, adequately trained for her work, the diagnostic approach during every lesson is quite natural. In order to be able to prevent reading disabilities, the teacher has to use all kinds of available diagnostic devices not only as a starting point for her teaching of beginning reading but also for continuous use as an integrated part of all the reading programs. Informal tests, objective tests, records of the progress of every individual child in various areas of reading as well as in other areas of personality development are to be used. Integration of language arts is desirable.

An ideal method of teaching reading does not exist. The good teacher tries to select methods and procedures best suited to each individual child in learning to read.

1033.

331.

Vol. 9, 64

## 3. Room of Twenty 52,

MARY JANE MCDONALD



ROOM of Twenty is a type of school organization for reading improvement. It is so named because twenty reading retardees are assigned to the room.

The pilot study was started with five teachers by Dr. William Kottmeyer, founder of the nationally famous St. Louis Reading Clinics. He felt strongly that a teacher with reading clinic training, using phonic techniques, selected materials, and not restricted to a time allotment schedule for various curricular areas, could help children who had not achieved third grade skills. This was the basis for its organization.

In the St. Louis Public Schools, pupils of the ungraded primary are classified by levels in the basic skills. They receive instruction at the level at which they are in each area, no matter what their placement. These levels are defined in terms of skills, and children who achieve the skills of the final primary levels have no difficulty in handling fourth-grade textbooks. No matter how well planned an ungraded primary or a skills program is, there are some children who do not master the skills after three years of primary instruction. These pupils become candidates for the Room of Twenty. Once children are assigned to a Room of Twenty, the *California Achievement Test* is administered. Scores from the test and an evaluation of skills achieved and to be achieved provide the remedial reading clinician with adequate data and background for forming small groups for instruction within the Room of Twenty.

A wide variety of remedial materials is available. Groups are given intensive phonic instruction, are free from time allotments, and have a curriculum stressing reading, arithmetic, spelling, oral and written communication skills taught by a trained remedial clinician. After twenty weeks of instruction, an alternate form of the *California Achievement Test* is administered. The average gain for one semester is usually one year. About one-half of the children of the Room of Twenty are ready after a semester to return to a regular room, equipped to handle fourth-grade material with success. It will take another semester for the remaining half.

Children in Rooms of Twenty usually have a wide age span. One explanation for the span is illness. Some children in the room have made frequent moves within the city, as well as from the city to the country, and have spent small and erratic periods of time in school. A loss of a parent through death or divorce during his early primary school years is often part of the case history of a child in the Room of Twenty. The reasons for reading disability are many and complex. Children in the Room of Twenty show many disabilities. As a result of this, they may be extremely nervous, troublesome, or unusually quiet in a regular room, lack study habits, have a short attention span, lack enthusiasm, and in general dislike school.

Once the reading is adjusted to the child's level of achievement, he begins to acquire skills and begins to read. He gains confidence through successful achievement. For the first time he may get 100 per cent in arithmetic and he has a chance to answer the question or find the passage in the book. Now he is the star; he answers instead of day dreams. He stops fidgeting or falling off the chair. He receives praise for his contribution, his completed assignment. He spends his school hours working instead of just putting in time. The pace is leisurely and unrushed, but progress is continuous and directed. The teacher is concerned with achieving the lacking primary skills and with giving each child reading skills and techniques which will equip him to go into a fourth grade room and handle the material with ease and success.

Every child in the Room of Twenty profits emotionally, socially, and academically, some to a greater degree than others. The teacher sees and appreciates each child's success, and the *California Achievement Test,* administered again at the end of the spring semester, substantiates the academic achievement. These scores are used as a basis for placement in a fourth grade class. A Room of Twenty sanctions retardation of a semester or two depending on individual achievement. However, without the advantages of acquired phonic techniques, increased reading ability, acquired study habits, a child would be unable to cope with the mounting responsibilities of the fourth grade. A whole new world thus is open to him through books which probably would have remained closed.

1034.

332.

220.

## B. UPPER ELEMENTARY LEVEL

# 1. Insights on Counseling Needs as a Clinician Sees Them

MARJORIE JEAN MCLEAN
Child Guidance Clinic of
Greater Winnipeg

### Counseling Defined

"COUNSEL" AS DEFINED by Webster is "mutual advising" or "deliberation together." "Insight" involves "keen discernment" or "understanding."

The point of view in this paper is in line with these definitions. Counseling is seen as a mutual sharing of understandings about a child in relation to his total environment.

For effective work, the sharing of information and observations is fundamental to developing insight into possible ways of changing attitudes and overcoming basic academic difficulties. As an example, it is often apparent that many children in the remedial reading groups work well in small-group situations but not within the classroom. The teacher and tutor have opportunities to review their findings together. As a result of such contacts, the tutor might try to develop, specifically, the transfer of positive attitudes in her area to that of the class, possibly through direct discussion, story material, and increased emphasis on independent assignments within her group. The teacher, also, may reassess her procedures to determine the feasibility of developing a different approach or of using different materials for instruction.

Basically, an exchange of information needs to take place to clarify the aims and goals that evolve. Many parents wish to know how they may participate in working through problems; others show no interest. A teacher will report that he is unable to deal with certain kinds of

1035.

difficulties and may well insist on a change of class placement for the student or for himself. A student may show that he is able to assimilate information about himself and use it positively in spite of interfering factors within the home or school.

Essentially, insights for the clinician are gained through the diagnostic procedure. In a Child Guidance Clinic such as the Winnipeg Centre, the Reading Clinician has access to social work histories, psychological and psychiatric reports, speech and hearing evaluations, school information, and his own diagnostic materials. Although all of these records are not available for each child referred, pertinent information exists according to the nature of the problem. It is possible, therefore, for a clinician to look at a child in some depth, to make clinical judgments about the findings, and to formulate some plan of action in the light of these findings and in conjunction with others involved.

The chief area of emphasis for the Reading Clinician involves, primarily, the child and the school. Apart from initial interviews and periodic contacts with the parents, home follow-up in many serious situations is maintained by the school social worker. The clinician's function is to work with the other related disciplines while focussing on the problem as it manifests itself in learning difficulties.

### Common Findings

Because of continuing failure and the attitude of others, many children see themselves as "stupid," "dumb," or "bad." They and the "important people" in their world have concentrated on their short comings for so long that the children often take the view that they are most inadequate people. As one mother stated—"You get so used to noticing the things he cannot do, you never really see the ones he can do." Another mother quoted her husband as saying, "When other fathers talk of their sons, I have nothing to say about mine."

Sometimes this negative tone is reinforced within the school where one will hear comments such as—"He cannot follow directions"—"He does not know his skills for this level of work"—"He cannot be relied upon in any independent situation." No one would argue with such statements, but these impressions need to be viewed in relation to the existing strengths.

Counseling work in this area focusses on seeking out the strengths as well as identifying the weaknesses. Often the findings agree with many of the negative viewpoints but simply present a new way of looking at a child. The conclusions may be that the child is underachieving, but at a particular point in time he has been able to learn a certain amount of material. He may not be reliable in independent activities, but he may have a contagious spontaneity in interpersonal relations. The task then becomes one of exploring ways and means to use these strengths. There are no "pat answers," but plans develop in the light of teacher capability, parental strengths, school acceptance, and the nature of the particular problem.

For example, one boy who had received a considerable amount of treatment for emotional difficulties was placed in the regular school situation but not in his home school. Much interpretation about this boy was given to the teacher. It was emphasized that he would regress markedly under stress, but with support he could respond. He was fairly adequate in arithmetic computation, but had a lot of trouble with reading.

Arrangements were made for him to receive additional help from the remedial reading tutor, and for the teacher to confer regularly with the tutor and, when possible, the Reading Clinician. In addition, the school principal decided to include him in a special group working on arithmetic problems in order to become acquainted and to help him make greater use of his numerical skill.

As was expected, behavior fluctuated and academic response was extremely limited at times. Frequently the teacher would become discouraged as she seemed to see this situation as a threat to her ability to deal with the child. Again, the background of the problem would be reviewed, and the teacher would be helped to see that gains were being made. By continually stressing his forward movement and yet giving recognition to the

1036.

evident weaknesses, this teacher seemed to be able to develop greater objectivity and confidence in her handling of a very difficult problem. Basic to her approach was her initial acceptance of this boy.

In another situation, counseling insights took a somewhat different direction. A sixth-grade boy frequently became very angry with his teacher over small matters. He would "explode" in such a way that she, in turn, would become angry with him. At the time of diagnosis, teacher and pupil were quite antagonistic towards each other.

Interviews and tests revealed the possibility of mild cerebral dysfunction and also pointed up a reading problem. This boy came from a home with many strengths; and he, himself, when not faced with excessive frustration, exhibited many personal qualities. He could relate well to accepting adults and was eager and anxious to socialize with his classmates. Also, he seemed willing to learn but was confused easily.

With this boy, the decision was made to focus on the reading problem through tutoring at the clinic. Contacts with the teacher resulted in little change of attitude, but she expressed a degree of relief when plans were made for him to be out of his class for at least two sessions a week.

From the beginning the youngster's low frustration tolerance was evident. But as time went on he seemed to respond to verbalizing about his explosive reactions. This talk would be followed up with a step-by-step assessment of the problem. Frank sessions were held concerning his role in relation to the teacher; and although he expressed no affection for her, he decided to work towards attempting to deal with his own problem behavior.

For the next term, a request was made for junior high placement with a known, accepting teacher. After interpretation to this teacher, she was able to anticipate many frustrating situations for the student and could give the necessary support. Eventually, she was able to make greater academic demands. The student seemed to feel better about himself and could cope with his environment more effectively. Prior to the diagnosis, his behavioral outbursts had often been misinterpreted and had had a damaging effect on his own concept of self and on the way he was perceived by others.

To work with children from culturally disadvantaged areas requires insight into their value systems, the facts of their environment, and their view of school and learning. Here the teacher needs to shift her academic goals and concentrate on the very real needs that exist. Because of severe home inadequacies, much effort is required to extend and develop the language area. Frequently, measures of intelligence reveal at least average nonverbal abilities with limited verbal power. Repeatedly the question is asked: "If he is of average ability, why isn't he learning?"

With many of these children, the deficit may never be overcome. However, by underscoring the fact for teachers that the school is possibly the main single factor in stimulating academic growth, changes in level of expectation occur. If strict adherence to regular grade standards is maintained, neither teacher nor pupil experience much satisfaction during the school term. Where the teacher is able to plan her program in a flexible way, she is able to capitalize to a greater extent on the existing strengths within her class. Visual reinforcement of the teaching materials—film strips, slides, murals, and direct experiences—help to provide the much needed background. Also, within the class, related reading materials with varying degrees of difficulty are necessary to round out the lesson. Diagnostic assessments point again and again to the need for such approaches in the academic area.

Sometimes the individual interview gives leads into possible interest areas for reading materials. Many children with difficulties reveal rather non-specific interests. They are often quite satisfied with a passive TV diet, and have no particular desire to cope with books. As one boy said—"Why should I bother when I can have lots of stories from the TV." Later, group pressures stirred him to the extent that he thought he would make a beginning. At one point, he remarked spontaneously that he "really liked" the stories which were from one of the series for reluctant readers. Follow-up discussion with the teacher and sharing of findings brought about further reading development with this boy.



## Conclusion

Counseling insights, then, take many different directions. They may relate to the parent and the child, to the teacher and the child, and to the child himself. The aim is to work towards establishing realistic goals for work with children, especially those with learning problems. Attempts are made to view the problem in the light of the total setting and to devise ways and means of building on existing strengths with due concern for weakness.

333.

# CORRECTIVE TEACHING IN THE CLASSROOM

## A. PRIMARY LEVEL

### 1. Prevention of Reading Difficulties

LILLIAN PUTNAM
Newark State College

READING SPECIALISTS have labored to develop good reading programs and to correct disabilities, but "One of the greatest sins of the educator concerns his failure to act to prevent disability." (*1*) Schools treat children "en masse," and only after a serious disability has developed, is the child identified and given special treatment.

Four facts are presently forcing us to consider preventative aspects: the large number of adult illiterates, the increasing number of remedial cases, the rising cost of remedial programs, and the traumatic experiences of the disabled reader.

The following practical suggestions could contribute greatly to the prevention of reading disabilities and could be implemented within the framework of present school systems.

#### Improved Teacher Training

In the vast task of both educating their students and teaching them "how to teach" teacher-training institutions frequently neglect or omit courses in the teaching of reading. A compulsory course, packed with content, observation, and practicum of the highest quality, should be instituted for every prospective elementary school teacher. Competent, well-trained teachers of reading in every classroom could prevent many disabilities.

#### Pre-school Parental Aid

Parents are eager to help prepare the child for kindergarten, but past and present customs have failed to utilize this aid. Schools could establish programs which enlist and guide parental effort to foster pre-school readiness activities: reading to the child, sharing discussions, predicting outcomes, traveling and visiting to develop concepts and vocabulary, and enjoying rhyming games. These natural activities could aid greatly in preparation for reading.

#### Improved Kindergarten Programs

Although good kindergarten programs offer excellent experiential background, there is need to provide specific training and practice in the particular skills needed in the reading process. We should develop the ability (1) to differentiate separate sounds in spoken words, (2) to visually differentiate and identify separate letters and word forms, and (3) to see relationships between letter forms and sounds of letters. Failure in this ability results in difficulty in relating sounds to printed letters and in relating sounds to words. Good worksheets which provide careful observation and visual discrimination are recommended. (*2*)

Studies by Wilson and Durrell have shown the importance of knowing the relationships between letter names and sounds for successful reading achievement. (*3*) (*4*) Stern and Gould report that this knowledge is an indispensable part of reading readiness. (*5*) It is also evident that children who show evidence of early disability are deficient in these skills. Therefore, it seems sensible to focus on these abilities as a major factor in prevention of disabilities and to teach them systematically.

It is not necessary to "rob the child of his childhood" to bring him to this point. It can be done easily by presenting several identical and common elements together and leading the child to discover and to draw the generalization inductively. But as Robison and Spodek have noted, children lack experience in naming, categorizing, and generalizing; they frequently lose sight of the discovery soon after it is made or remember it in some distorted form. (*6*) Therefore, the kindergarten teacher must help them to verbalize the generalization.



1038

There is new evidence supporting a stronger position for structured pre-reading programs in kindergarten. Schoephoerster and others identified six instructional tasks of visual and auditory discrimination, specifically required in the reading process, which should be taught in a kindergarten-readiness program: (1) how to use spoken context as preparation for the eventual use of printed context as part of a technique of word identification, (2) how to distinguish letter forms from one another, (3) how to distinguish letter sounds from one another, (4) how to associate letter sounds and forms so that the perception of a letter or group of letters will prompt the recall of the correct sound or sounds, (5) how to use spoken context and letter-sound associations to call to mind words that make sense and begin with the sound that a given letter stands for, and (6) how to use spoken context and the first letter in a printed word to positively identify a word.

They reported that a formal readiness program teaching these skills benefited children of all ability levels with no evidence of accompanying frustration or emotional deterioration. (7)

A better kindergarten program would also identify cases of mixed or unestablished dominance and assist the child in gaining a sense of direction and orientation by consistent practice.

### Screening Process after Kindergarten

One of the greatest errors in school reading programs is the assumption that all children will start formal reading in first grade. The only adaptation to individual differences seems to be in the rate at which each child is allowed to progress. This practise is educationally unsound. It results in serious disabilities and costly remedial programs.

One method of rectification would be to establish an intensive screening procedure at the end of the kindergarten year to identify pupils not yet ready for the formal reading program. These pupils could be placed in a vestibule class, not to repeat kindergarten but to be given training and practice in the specific areas of their deficiencies. Frequently these deficit areas occur in auditory and visual discrimination, language or speech patterns, and word knowledge.

Certainly no one tool would constitute the means of identification, but it would present a composite picture determined by data derived from (1) standardized reading readiness tests, (2) test of visual and auditory discrimination, (3) teacher observation, and (4) readiness checklists which include laterality, dominance, and orientation factors.

Children with specific deficiencies do not need "more of the same" but a concentration of particulars. The vestibule class, by providing "the particulars," could prevent many disabilities.

One relatively untouched area in prevention of disabilities is that of identifying the emotionally disturbed child before he starts the formal reading program. Carrithers found that children with emotional difficulties at the pre-school level have greater difficulty in learning to read and follow different learning patterns and that those with the greatest emotional difficulty make the slowest start *(8)*. Thus the early identification and provision for therapy to eliminate or reduce tensions could provide the emotional freedom to learn.

A second neglected area is that of identifying the neurologically impaired child before the formal reading instruction starts. The alert kindergarten teacher can detect symptoms and signs of unusual behavior and refer the child for neurological examination. If neurological impairment is present, then specific methods and techniques stressing multi-sensory materials can be used immediately; and the child need not fail with routine procedures first.

Another serious, false assumption is that all children can and will learn to read by the same method and approach. We give lip service to individual differences, yet schools adopt a basal reader or reading system and process all children through it in the same way. We know, for example, that phonics can be taught by an analytic or synthetic method and with a formal, functional, or incidental approach. It would be ideal if we could determine by pretesting which method and approach would be most successful with each child. That is, is there a con-

1039

stellation of factors about a child—mental age, chronological age, physical assets, personality factors—such that he learns to read more easily and successfully by one method and one approach? By which modality does he learn best—the auditory, visual, kinesthetic, or eclectic? Although the studies of Bear and others have opened the door to this untapped area, more comprehensive research is needed to yield definitive answers *(9)*.

## January Identification

Probably the most important step in prevention of reading disabilities would be the identification in January of normal first graders who are struggling or failing to progress by the methods being used. It is neither necessary nor wise to wait until third or fourth grade. If present methods or approaches are failing, others should be investigated and tried.

These children should be re-screened to determine if any physical impediments are responsible. Retests for vision, hearing, laterality, orientation, coordination, and dominance would be in order. If these results are negative, then attention should focus on method.

Anyone who has tried to isolate methods realizes the difficulties involved because there is always some overlapping. But it is possible to teach several trial lessons, with emphasis on one method and a minimum of the others. One note of caution should be observed. The teacher *should* be certain that the learning tasks involved for each method are of similar or equal complexity. If they vary greatly in length, time, or difficulty, it will be impossible to evaluate the method.

Careful, objective evaluation of these trial lessons could indicate the method by which the child learns most easily. One commercially published test which attempts to do this is the Mill's Learning Test *(10)*. Although not standardized, it yields valuable information to initiate and guide the teacher's diagnosis of the child's reactions to various methods.

The teacher thus attempts to become acquainted with the child's assets and deficiencies, strengths and weaknesses to determine how he will best learn.

The logical step then would be to choose or adapt a method of instruction which would use the child's strengths. This procedure does not mean eliminating the area of weakness but rather avoiding it until a definite measure of success is demonstrated. The deficit areas can be developed later. If a child has strong auditory discrimination, it would be wise to stress a phonic method; if he has strong tactile ability, the kinesthetic method. Thus the method would be adapted to the child and not the child to the method, as is presently done. These factors could also become one criterion for determining "teaching groups" within the classroom.

## Concentration on Concepts

Primary teachers who have taught the ideas and concepts involved in the reading materials, prior to actual reading, well know to what extent it aids comprehension. This fact has been effectively demonstrated in studies by Cantor and Almy *(11)* *(12)*. It occurs because the child hears the new vocabulary in a meaningful context first, acquires a "mind set" for the learning experience, and becomes receptive to the ideas of the content. Teachers could do much to prevent disabilities if they practiced this procedure more often.

## Development of Polysemantic Words

Kindergarten and primary teachers could further aid in prevention of disabilities by developing the concept of polysemantic words. The kindergarten child who learns that "bank" means a wall of snow, a place to deposit money, a set of oars, etc., has less difficulty accepting and coping with the twenty different possible meanings of "run." In the sentence "There was a run on the bank," he will not be misled into thinking that the bank itself was running. These concepts should be developed as the child meets simple words, first in oral language, later in reading.

## Summary

Prevention of disabilities could be facilitated if

1. All teacher-training institutions improved the quality of reading courses and made them compulsory for Elementary

School Majors;

2. Schools enlisted parental assistance in a positive, guided program for preschool children;

3. The specific auditory and visual-discrimination skills needed in the reading process were taught before the formal reading program;

4. The vocabulary and concepts of primary materials were developed prior to reading;

5. Children were carefully screened after kindergarten, to identify the emotionally disturbed and the neurologically impaired; (These children should be placed in a vestibule class for specific training suited to their needs in deficit areas.)

6. Children who were struggling or failing to make progress commensurate with their abilities were identified early in January or February of first grade;

7. Selective testing were done to find the cause of the disability and trial lessons were conducted to determine the methods and approaches by which each child learns best; and

8. Methods and materials of instruction were employed which were suited to the child's needs—to the modality by which he learns best and leaning heavily on his strengths.

## REFERENCES


1. Kolson, Clifford and Kaluger, George. *Clinical Aspects of Remedial Reading.* Springfield, Illinois: Charles C. Thomas, 1963, 13.
2. Merwin, Mary F. *Skill Sheets for Reading Readiness.* Scranton, Pennsylvania: Acadia Press, Inc.
3. Wilson, Frank and others. "Reading Progress in Kindergarten and Primary Grades," *Elementary School Journal,* XXXVIII (Feb. 1938), 442-49.
4. Durrell, Donald and Murphy, Helen. "The Auditory Discrimination Factor in Reading Readiness and Reading Disability," *Education,* LXXIII (May 1953), 556-60.
5. Stern, Catherine and Gould, Toni. *Children Discover Reading*—An Introduction to Structural Reading. Syracuse, N. Y.: L. W. Singer Co., 1965, 42.
6. Robison, Helen F. and Spodek, Bernard. *New Directions in the Kindergarten.* New York: Teachers College Press, 1965, 132.
7. Schoephoerster, R.; Barnhart, R.; and Loomer, Walter. "The Teaching of Prereading Skill in Kindergarten," *The Reading Teacher,* Vol. 19, No. 5 (Feb. 1966), 352-357.
8. Carrithers, Lura M. "Beginning Reading Patterns and Preschool Emotional Problems," *Educational Horizons* (Fall 1965), XLIV, No. 1, 8.
9. Bear, David E. "Two Methods of Teaching Phonics: A Longitudinal Study," *Elementary School Journal,* LXIV (Feb. 1964), 273-9.
10. Mills, Robert E. Learning Methods Test: Mills Center Inc., Fort Lauderdale, Fla.
11. Cantor, Alma. *An Historical, Philosophical and Scientific Study of Kindergarten Excursions as a Basis for Social Adaptation and Reading Readiness.* Master's Thesis. Cincinnati, Ohio: University of Cincinnati, 1935.
12. Almy, Millie. *Children's Experience Prior to First Grade and Success in Beginning Reading.* Doctoral Dissertation. New York: Teachers College, Columbia University, 1949.


1041

334.

# 7. Evaluation of an Experimental Program of Perceptual-Motor Training with Slow Readers[1, 2]

446.

EUGENE G. ROACH
Indiana University Medical Center



PERSISTENT, SOUND pedagogical techniques have been neither sufficient nor adequate in dealing with and remediating slow readers. Educators have long sought other approaches and applied various techniques to solve this most exquisite and complex problem in language development. The "how" and "why" of the acquisition of symbolic learning still eludes us, particularly when we try to apply remedial techniques.

This study was designed to measure the effects of perceptual-motor training on a group of slow readers. The training techniques used are modifications and amplifications of ideas suggested by Kephart *(2)*. A similar study by Rutherford *(6)*, with positive results, was reported last year using a narrower range of age groups than reported in this study. Rutherford's age-range was sixty-two to eighty months. The age-range in the present study is ninety-five months to one hundred sixty months. Other researchers, Simpson *(7)*, and Ross *(5)*, have reported studies which also indicate improved readiness for reading following a vigorous perceptual-motor training period. The populations in these studies also involved children at or below the third grade level. It was decided to attempt perceptual-motor training with children who were somewhat older than children previously studied, and to measure the effect on the gains made in reading achievement following such training. It is not the purpose of this study to discover the value of perceptual-motor training, *per se*, but to explore certain methodological problems. The value of perceptual-motor training has already been demonstrated.

The entire experiment was carried out during an eight week summer remedial reading program at Indiana University, Bloomington, Indiana. All children were assigned to remedial reading groups on the basis of age. Since the reading program involved many teachers and many techniques, these variables were considered to be randomly distributed in the population of slow readers.

Eighty children were divided into two equal groups. One was designated the experimental group and the other the control group. Rigorous matching procedures were applied in the assignment of the subjects to the experimental and control groups. Each child was matched initially according to sex, age, grade placement, reading level, and the Peabody Picture Vocabulary Intelligence Quotient. Table I shows Means, Variances, and F ratios for certain initial variables.

During the experiment other data were collected to assure comparability of the groups. These variables included the Raven Progressive Matrices, the Wechsler Intelligence Scale for Children, the Average Rating Score on the Purdue Perceptual-Motor Survey *(4)*, Father's education, and Mother's education. In Table II are presented the Means, Variances, and F ratios for the variables collected during the experiment.

TABLE I
MEANS, VARIANCES AND F-RATIOS ON INITIAL VARIABLES

| | Experimental Group | | | Control Group | | | | |
|---|---|---|---|---|---|---|---|---|
| | N | Mean | Variance | N | Mean | Variance | F-Ratio | LS |
| Age in Months | 40 | 125.30 | 336.78 | 40 | 125.37 | 350.70 | 1.0413 | NS** |
| Oral Reading Level* | 40 | 3.300 | 109.79 | 39 | 3.512 | 177.22 | 1.6011 | |
| Peabody Picture Voc. IQ | 40 | 108.15 | 182.59 | 40 | 103.48 | 167.64 | 1.0892 | |

*Gates-McKillop Reading Diagnostic Test oral reading level.
**All F-Ratios fall below level of significance at p.05 level.

The experimental group was divided into small groups (between 6-8 children in each group) and each group received 30 minutes of intensive perceptual-motor training each day for eight weeks under the direction and supervision of the author. The training period was divided into six minute periods devoted to various training activities. The six minute periods consisted of: (1) balance and laterality activities, (2) rhythmic activities, (3) neuromuscular differentiation and body image activities, (4) gross perceptual-motor matching activities, and (5) chalkboard activities involving finer perceptual-motor tasks. All activities were

[1]The author wishes to express his appreciation to James Norton, Ph.D., Indiana University School of Medicine for help in statistical analysis of the data.
[2]"This research was supported in part by Public Health Research Grant FR 00162-02."

1042.

TABLE II

COMPARISON OF MEANS, VARIABLES AND F-RATIOS OF INTELLIGENCE, PERCEPTUAL-MOTOR, AND SOCIOLOGICAL VARIABLES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS

| | Experimental | | | Control | | | F | |
|---|---|---|---|---|---|---|---|---|
| Variable | N | Mean | Variance | N | Mean | Variance | Ratios | LS |
| Raven's Matrices (Raw Score) | 39 | 26.48 | 32.99 | 40 | 26.52 | 30.31 | 1.09 | |
| Perceptual Motor Survey (rating average) | 37 | 2.42 | 2.72 | 37 | 2.46 | 2.56 | 1.06 | |
| WISC Full Scale IQ | 39 | 97.90 | 110.36 | 38 | 96.82 | 208.75 | 1.89 | * |
| Verbal IQ | 39 | 96.61 | 134.19 | 38 | 96.42 | 229.44 | 1.71 | |
| Performance IQ | 39 | 99.31 | 145.96 | 38 | 97.92 | 202.94 | 1.39 | |
| Information | 39 | 9.49 | 5.94 | 38 | 8.84 | 6.03 | 1.04 | |
| Comprehension | 38 | 9.34 | 13.47 | 38 | 10.03 | 18.24 | 1.35 | |
| Arithmetic | 39 | 7.74 | 7.83 | 38 | 8.47 | 13.18 | 1.68 | |
| Similarities | 39 | 10.92 | 9.75 | 37 | 10.84 | 10.75 | 1.10 | |
| Vocabulary | 38 | 9.87 | 8.01 | 38 | 9.84 | 12.35 | 1.54 | |
| Picture Comp. | 39 | 10.74 | 10.14 | 38 | 10.18 | 7.78 | 1.30 | |
| Picture Arr. | 39 | 10.95 | 8.21 | 38 | 10.32 | 8.11 | 1.01 | |
| Block Design | 38 | 9.89 | 6.96 | 38 | 10.26 | 9.55 | 1.37 | |
| Object Assembly | 38 | 10.08 | 9.26 | 37 | 10.16 | 9.25 | 1.00 | |
| Coding | 38 | 8.39 | 8.89 | 38 | 7.79 | 8.93 | 1.00 | |
| Mother's Educ. (in yrs.) | 37 | 12.57 | 4.25 | 39 | 12.67 | 4.28 | 1.01 | |
| Father's Educ. (in yrs.) | 35 | 13.66 | 12.53 | 39 | 13.15 | 6.29 | 1.99 | * |

*Significantly different at the p.05 level. p.05 level=1.8817.

accomplished in a modern grade-school gymnasium with the exception of chalkboard activities. This activity was carried out in the classroom. The entire training program was presented as a "controlled recess period."

The control group was given a 30 minute recess period. They received only minimal playground supervision from the person assigned to playground duty. However, many of the same types of play equipment were available to them to use as they wished, *i.e.,* a walking board, jump ropes, swings, etc.

Each students was given the Oral Reading portion of the Gates-McKillop Reading Diagnostic Test, Form I *(1)* at the beginning of the remedial reading program. This constituted the criterion measure of initial reading achievement level for each student in the study.

At the end of eight weeks the Oral Reading portion of the Gates-McKillop, Form II, was administered. This is referred to in this study as the immediate post-training criterion score.

It was decided before training that the effects might not be demonstrated as rapidly as the eight week period would allow. In order to obtain an adequate post-training score, the Oral Reading portion of the Gates-McKillop, Form I, was administered again six months following perceptual-motor training.

This test administration procedure allowed the collection of three criterion measures. One measure would be the gain in reading level between initial score on the Gates-McKillop Form I and the score earned at the end of the eight weeks training program on Form II. The second measure would be the gain in reading achievement, if any, between the initial level on Gates-McKillop Form I and the level of reading achievement level earned at six months following training on the Gates-McKillop Form I. The third criterion measure possible would be the difference in reading levels between the eight week testing with Form II of Gates-McKillop and the six month testing using Form I of the Gates-McKillop. The latter measure was not used further in the analysis of the data.

After a careful analysis it was decided to use the difference between reading achievement level on the initial test and the six month test as the main criterion measure to determine the effectiveness of perceptual-motor training. This was done for two reasons. First, both of these scores resulted from the same forms of the Gates-McKillop Reading Diagnostic Test. Thus, no assumption of Form I and Form II comparability needed to be made. And second, it would be predicted that

perceptual-motor gains made during training, if important to reading skills, would best be demonstrated after six months.

## Results

Table III presents the paired t-ratios for the two criterion measures immediate gain and gain at 6 months between the experimental and control groups. It is readily seen that the effects of perceptual-motor training on reading achievement, when given in groups of six to eight children, fail to reach a level of statistical significance.

F-ratios between the control group and experimental group are all statistically non-significant with the exception of Full Scale IQ on the Wechsler Intelligence Scale for Children and Father's education. The F-ratios of all subtests included in the Wechsler Intelligence Scale for Children Verbal and Performance Scales are statistically non-significant at the p.05 level.

TABLE III

PAIRED T-RATIOS OF GAIN SCORES ON THE GATES-MCKILLOP READING DIAGNOSTIC TEST IMMEDIATELY FOLLOWING TRAINING AND AFTER SIX MONTHS BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS

| Immediate Gain | | | | | Six-Month Gain Scores | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pair N | Ed | $\bar{d}$ | $S^2d$ | t.obs | Pair N | Ed | $\bar{d}$ | $S^2d$ | t.obs |
| 38 | 4.5 | .1154 | .9034 | .754 | 25 | 1.3 | .052 | .144 | .361 |

## Discussion

The critical factors in this study should now be clearly stated. One factor involved the rigorous matching of two groups. It is inescapably clear, as the data are reviewed, that the two groups are well matched. (See Tables I and II). Second, it is the author's opinion that perceptual-motor behavior cannot be modified in groups of six to eight children at this age level, but must be done on an individual basis.

In pursuing this aspect of individual versus group perceptual-motor training, the author matched seven children who were in the experimental group with their control group counterpart. These children from the experimental group had previously received perceptual-motor training for a brief period before on an individual basis, and continued to receive this training during the first semester of the 1965-1966 school term. Table IV indicates very dramatic differences in gain scores immediately following training and at six months between this group who received continued perceptual-motor training on an individual basis and those who did not. These gain scores do reach statistical significance. In addition to making significant gains in reading achievement, the subjects who receved continued individual perceptual-motor training also made significant gains in their ratings on the Purdue Perceptual-Motor Survey.

The factor of age is felt to be a critical variable in this study. It may be that in order for group perceptual-motor training to be effective it must be given earlier than ninety-five months of age. Earlier

TABLE IV

PAIRED T-RATIOS BETWEEN GAIN SCORES ON THE GATES-MCKILLOP READING DIAGNOSTIC TEST OF INDIVIDUALS RECEIVING INDIVIDUAL VS. GROUP PERCEPTUAL-MOTOR TRAINING AT BOTH IMMEDIATE AND SIX-MONTH PERIODS

| Immediate Gain | | | | | Six-Month Gain | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pair N | Ed | $\bar{d}$ | $S^2d$ | t.obs | Pair N | Ed | $\bar{d}$ | $S^2d$ | t.obs |
| 7 | 6.4 | .9143 | .365 | 2.505* | 5 | 2.7 | .540 | .166 | 3.253* |

*Both values significant at the p.05 level.

1044.

studies which report positive results following perceptual-motor training seem to support this view.

Another critical factor was the loss of cases in the experimental group at the time of six month testing. More elaborate statistical analyses which we are presently undertaking may overcome the problems of missing data.

## Conclusions

This study indicates that perceptual-motor training is not effective in raising achievement levels in reading when training is given in small groups of six to eight children. There also appears to be an age variable, since studies on younger children have produced significant positive results. The lower age limit of ninety-five months, as was the case in our study, may be too late for efficient modification of perceptual-motor behavior on a group basis.

## Implications for Further Research

We are now completing a more elaborate analysis of the data and doing a step-wise multiple regression analysis to pick out predictors which are correlated with success in the remedial reading program under study. When these predictor variables are selected, more elaborate analyses between the control and experimental group differences can be accomplished by the use of the analysis of covariance. A more detailed study is now being prepared to analyze and report on all of the implications of perceptual-motor behavior, perceptual-motor training, intelligence, and sociological variables.

### REFERENCES


1. Gates, A. I. and McKillop, Anne S. *Manual of Directions for Gates-McKillop Reading Diagnostic Tests.* Bureau of Publications, Teachers College, Columbia University, New York, 1962.
2. Kephart, N. C. *The Slow Learner in the Classroom.* Columbus, Ohio: C. E. Merrill, 1960.
3. Roach, E. G. *The Perceptual-Motor Survey: A Normative Study.* Unpublished doctoral dissertation, Purdue University, 1962, 94 pp. (order No. 63-1615, Mic $2.75; Xerox $4.80).
4. Roach, E. G. and Kephart, N.C. *The Purdue Perceptual-Motor Survey.* Columbus, Ohio: Chas. E. Merrill, June 1966.
5. Ross, B. B. *Correlation Between Total Subtest Scores on Metropolitan Reading Readiness Tests and Third Grade Metropolitan Reading Test Scores.* Unpublished M.A. thesis, University of Louisville, 1962.
6. Rutherford, Wm. L. "Perceptual-Motor Training and Readiness," *Reading and Inquiry* (J. A. Figurel, Ed.). International Reading Association Proceedings Vol. 10, 1965. Newark, Delaware, 294-296.
7. Simpson, Dorothy M. *Perceptual Readiness and Beginning Reading.* Unpublished doctoral dissertation, Purdue University, 1960, 103 pp. (order No. 60-1214, Mic. $2.75; Xerox $5.20).
8. Winer, B. J. *Statistical Principles in Experimental Design.* New York: McGraw-Hill, 1962.


1045.

335.



Vol.7, 62

# 8. Children Who Show Undue Tension When Reading: A Group Diagnosis

MILDRED C. ROBECK

Among students who experience unusual difficulty in learning to read, there are some who show extreme tension when confronted with the necessity to read. Psychometrists, for example, may note good rapport with certain subjects until that point in the WISC where they are asked to read the arithmetic problems; or in the Binet (Form L-M) to read the sentences which make up the Minkus Completion Test. Reading clinic teachers observe that some children, although relatively relaxed during conversation or story writing, become tense upon being asked to read.

In this study *undue tension* was regarded as a state of uneasiness, indicated by emergent behavior which was observable in the lesson setting. Combinations of two or more of the following forms of behavier were considered indicative of undue tension: tautness of posture, strained voice (high, nasal, or breathy), paleness of face, perspiration on forehead, increased stammer or loss of speech, random movements, decreased motor skill, deterioration of rapport, and sighing or deep breathing. Readers were regarded as unduly tense when they repeatedly demonstrated greater emotional involvement in reading than in non-reading tasks.

## Problem

The purpose of the study was to determine whether tense readers had characteristics in common which, if known, might be further explored in a symptomatic approach to diagnosis.

Problem 1: To analyze and describe the oral reading characteristics of clinic children selected for undue emotional involvement associated with reading.

Problem 2: To test the null hypothesis that intellectual strengths and weaknesses are the same in tense readers as in clinic children who lack word-attack skills, but do not show comparable stress in reading situations.

Problem 3: To compare reading achievement and reading potential as indicated by selected group and individual tests.

Problem 4: To isolate clues revealed in the backgrounds of the children which might provide the basis for a more systematic investigation of causal factors in reading disability.

## Subjects

The subjects were 20 reading clinic children, selected over a period of three years from 119 cases. There were 16 boys and four girls who ranged in age from 7-1 to 14-8, in grade from 2.1 to 9.7 and in Full Scale IQ from 93 to 136. Children with serious emotional problems were not selected if reading situations presented evidence of stress no greater than similar non-reading tasks.

## Procedure

### *Oral Reading Analysis*

Oral reading samples were recorded on magnetic tape. Errors were transcribed on reading sheets and tabulated. Each type of error was reduced to frequency in 100 running words. Means and standard deviations were determined. The error characteristics of readers who lacked word-attack skills but did not reveal pressure symptoms (1) were used as a point of reference for an appraisal of error frequencies.

Samples in which each type of error fell within one *SD* of the mean were selected as "typical" and were analyzed for dominant patterns of error. All recordings were re-examined for evidence of the characteristic combinations of errors observed in the typical cases. A recording was prepared which included samples from several of the tense readers and demonstrated this type of reading.

### *Intelligence*

The Wechsler Intelligence Scale for Children was administered to 20 clinic children in the experimental group and

1046

**Table 1**
**ORAL READING ERRORS**

| Types of Errors | Range TR* | Range LW-A** | M TR | M LW-A | SD TR | SD LW-A |
|---|---|---|---|---|---|---|
| Fluency Errors | | | | | | |
| Repetitions | 3-18 | 2-31 | 7.02 | 16.60 | 3.88 | 6.18 |
| Stops | 4-23 | 25-49 | 10.10 | 37.00 | 4.94 | 6.15 |
| TOTALS | | | 17.12 | 53.60 | | |
| Recognition Errors | | | | | | |
| Insertions | 0-4 | 0-8 | 1.33 | 2.05 | 1.22 | 2.50 |
| Substitutions | 4-16 | 15-42 | 10.07 | 27.85 | 4.62 | 6.36 |
| Refusals | 0-17 | 0-37 | 3.09 | 17.95 | 3.86 | 9.99 |
| Omissions | 1-4 | 0-5 | 1.77 | 1.85 | 1.04 | 1.42 |
| Reversals | 0-2 | 0-2 | — | — | — | — |
| TOTALS | | | 16.26 | 49.60 | | |

*Tense Readers (N=15)
**Readers Who Lacked Word-Attack Skills (N=20)

to 20 clinic children who were selected for absence of stress symptoms associated with reading. According to clinic procedure, the interpretation of each child's performance was based on subtest deviation from his own scaled score mean. The *SEm* appropriate for the child's age group was used to determine whether deviation was significant (2).

*Achievement and Potential*

Children in the primary grades were administered the Gates Advanced Primary Reading Test, Types 1 and 2, Form 1. The older elementary school students were administered the Durrell-Sullivan Reading Achievement Test, Form A or B. Junior high and high school students had the California Reading Test.

Expected reading levels were calculated by the formula: (years in school x IQ) + 1.0. Mean differences between reading capacity and silent reading abilities were determined. Error ratios for oral reading samples were obtained in Problem 2.

*Causal Factors*

Cumulative folders of each of the 20 children were examined and factors generally regarded as related to reading difficulty were itemized.

## Results

*Oral Reading Characteristics*

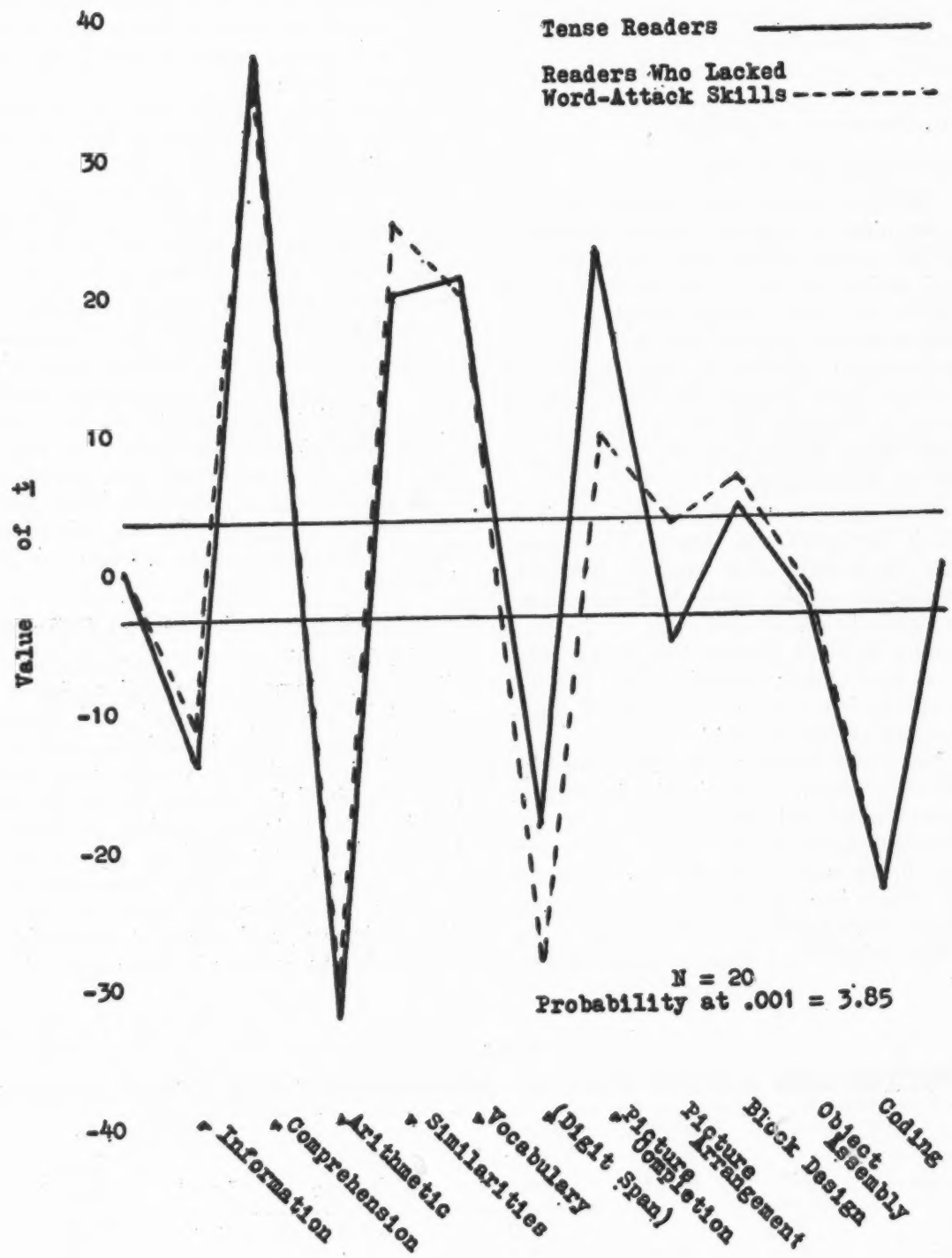
Five of the children were unable to provide an adequate sample at first-grade level. Samples of errors from the fifteen remaining cases were summarized in Table 1.

The tense readers emerged with fewer errors than were shown by the control group, although the criteria used for selection of the material to be read was the same. In both groups the fluency errors represented about half the total errors. Both groups made substitutions more frequently than other types of recognition errors. Both groups tended to substitute words with like beginnings and similar configuration; but these made sense in the preceding context. Little evidence was indicated of the inspection of the remainder of a sentence for context clues.

Five reading samples remained as typical after elimination of all samples which deviated more than one sigma in any error category. Each of these subjects revealed tenseness in voice and in reaction to the materials. They showed a compulsion to "keep reading" and tended to make substitutions rather than to have the word supplied. Repetitions occurred when the context did not make sense, to correct a substitution, and on known words when an unfamiliar word was encountered. Two of the children tended to stop after an error, then proceed without correction; three tended to stop and correct, even when the error was minor.

**Table 2**

**WISC SUBTEST DEVIATIONS**



A re-examination of the fifteen reading samples showed that all tense readers made some stops in situations where no immediate recognition difficulty confronted the reader but where an error had been committed. Nine of the children tended to correct the previous error; six showed a reluctance to correct and usually proceeded without correction. Seven of the children, including some who showed a reluctance to correct, made repetitions on familiar words or phrases.

*Intellectual Functioning*

Children whose oral reading was accompanied by extreme tension showed a WISC profile which was similar to control subjects in ten of the eleven subtests (Table 2). Both groups revealed significant weakness (beyond the .001 level) in Information, Arithmetic, Digit Span, and Coding. Both groups showed significant strength (beyond the .001 level) in Comprehension, Similarities, Vocabulary, and Picture Completion.

Both groups were significantly high in Block Design (.001 level). This result was interpreted with caution, however, because an earlier study had shown extreme deviation at both ends of the continuum in Block Design, Picture Arrangement, and Object Assembly (3). Neither group deviated to the .01 level of confidence in Object Assembly.

Non-tense problem readers were significantly strong (.01 level) in Picture Arrangement and tense readers were significantly weak (.001 level). Although the sample was small, the low scores of the older boys in this sample suggest further investigation into the possible use of this subtest as a diagnostic instrument.

*Reading Potential and Reading Achievement*

Three primary age students averaged 1.8 grades below expected achievement on tests of silent reading ability. Nine upper elementary pupils showed a *M* negative difference of 2.6. Five junior high and high school students in the sample averaged 2.8 grades below potential by the formula (Table 3).

Results indicated that the oral reading samples were very similar in difficulty to the indicated silent reading abilities. However, the recognition errors ranged in frequency from seven to nine running words. This was far below the 1:20 error ratio usually recommended as an appropriate level for instructional purposes.

At least two different interpretations seemed reasonable. (1) Students with this type of reading problem may read much better silently than orally; or (2) the silent reading abilities shown on these tests may have reflected the generally high intelligence of these students, and the ability to handle the test situation more adequately than reading skills justified.

*Possible Causes of the Reading Difficulty*

The files which were reviewed included diagnostic summaries, a questionnaire returned by parents, summaries of school records, notes from interviews, and reports from a variety of persons who may have examined the student. Many formal and informal tests were used on a selective basis, so that some children, but not all, would have had laterality tests, tests of auditory discrimination, aptitude tests, diagnostic tests, and others. A reasonably firm basis was evident in the records for

**Table 3**

**EXPECTED AND ACTUAL READING ACHIEVEMENT FOR THREE GROUPS**

| Grade Range | N* | Expected Reading Level** | Silent Reading Level | Mean Difference | Oral Reading Level | Oral Reading Error Ratio*** |
|---|---|---|---|---|---|---|
| 1-3 | 3 | 3.8 | 2.0 | —1.8 | 1.8 | 1:7 |
| 4-6 | 9 | 5.9 | 2.8 | —3.1 | 2.6 | 1:6 |
| 7-9 | 5 | 9.3 | 6.5 | —2.8 | 7.0 | 1:9 |

*N=17 (Three children had no adequate measure of achievement.)
**(Years in school x IQ)+1.0
***Recognition Error: number of running words.

1049

each of the factors entered in Table 4. Most of the items from case histories were checked not systematically with each of the subjects, but were entered when observed in the clinic.

## Summary

1. Children classified as tense readers were observed to substitute for words not known rather than to have them supplied by the examiner. Their substitutions were words of like beginnings, of similar configuration, and they made sense in the context. Some children kept reading in spite of recognition difficulties, some made repeated repetitions of known words while they analyzed unknown words, some stopped after errors and proceeded without correction. Frequent errors resulted in marked increase in tension symptoms.

2. The null hypothesis that intellectual strengths and weaknesses in tense readers are the same as those revealed by reading clinic children who do not show stress in reading situations was upheld in ten of eleven WISC subtests. In Picture Arrangement non-tense problem readers ranked significantly high; while the tense readers ranked significantly low.

3. On tests of silent reading ability student groups performed from 1.8 to 3.1 grades below estimated potential. They were not able to demonstrate instructional level abilities when asked to read orally at the level of competence indicated on the tests.

4. Twenty-seven factors thought to be related to reading difficulty were identified. In order of frequency those which ranked highest were: (1) Poor visual memory, (2) Family pressure to succeed in school, (3) Poor auditory memory, (4) Lack of auditory discrimination, (5) Mixed lateral dominance, (6) Minimum entrance age.

**Table 4**
**FACTORS ASSOCIATED WITH READING DIFFICULTY**

| Items from Case Histories | Incidence |
|---|---|
| Poor visual memory | 13 |
| Family pressure to succeed in school | 12 |
| Poor auditory memory | 12 |
| Lack of auditory discrimination | 10 |
| Mixed lateral dominance | 10 |
| Minimum entrance age (youngest 1/4 of class) | 9 |
| Over-dependence | 9 |
| Inadequate personal adjustment | 9 |
| Socially immature at first grade level | 8 |
| Distractible | 7 |
| Delayed articulation | 7 |
| Family crises during primary grades | 6 |
| High-strung—excitable | 6 |
| Frequent changes of schools during grades 1-3 (3 or more) | 5 |
| Inadequate social adjustment | 4 |
| Lack of mental readiness when beginning first grade | 4 |
| Reversal tendencies | 4 |
| Respiratory ailments during pre-school period | 4 |
| Correct visual difficulties | 4 |
| Hyperactive | 4 |
| Minimal brain damage | 3 |
| Tonsil-adenoid removal | 3 |
| Poor motor coordination | 2 |
| Abnormal birth history | 2 |
| Prolonged high fever illness | 2 |
| Delayed toilet training | 2 |
| Lack of visual discrimination | 1 |
| TOTAL | 159 |



REFERENCES

1. Robeck, Mildred C., "Readers Who Lacked Word Analysis Skills: A Group Diagnosis," Presented at the *Fourth Annual Workshop in Reading Research*, Denver, March 28, 1961. Accepted for publication.
2. Wechsler, David, *Wechsler Intelligence Scale for Children, Manual.* Psychological Corporation, 1949.
3. Robeck, Mildred C., "Subtest Patterning of Problem Readers on the WISC," *California Journal of Educational Research*, 11: 110-115, May, 1960.

1050

336.

Vol. 10, 1965



## B. UPPER ELEMENTARY LEVEL

### 1. A New Concept of Remedial Reading

H. ALAN ROBINSON
University of Chicago

THIS IS a rather audacious paper, for you know that "the thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun."[1]

#### Weaknesses in Remedial Reading Programs

1. *Repetition of a developmental program under the title of remedial reading*

Repetition of classroom methods that haven't worked, and the utilization of basal readers and manuals in sequence are poor excuses for remedial treatment particularly at the junior high school level. A student who has struggled with phonics in grades one through six may under remedial treatment in grade seven just happen to be ready to learn through that mode, but in all probability, more phonics on top of earlier failures with phonics will ensure defeat. A remedial program is obligated to take care of specific needs.

2. *Inadequacy or absence of diagnosis*

Numerous standardized diagnostic tests and informal evaluation tools exist for diagnosing specific needs, but they are often not put to use. A remedial reading program cannot be conducted on the basis of standardized reading achievement test scores. A score of 5.2 or 5.6 or 5.3 may represent no difference in reading level, or may represent extremely different needs and strengths. A teacher must know *what* vowel sounds, blends, or syllable concepts need emphasis for a particular student, and *what* approach to use with him. A teacher must know *what* specific comprehension behaviors are weak and *what* subskills cause such inability in a particular student. Lack of differential diagnosis causes many junior high school remedial reading programs to be almost a farce.

[1]Eccles. 1:9.

3. *Lack of individualized instruction*

Obviously students can be grouped to work on common needs, but in remedial work the differences are apt to be so significant that specific and individual attention becomes essential. Let us compare a medical diagnosis and treatment with reading diagnosis and treatment. In medicine, there are certain common prescriptions that a doctor will use for patients with certain types of illnesses. But if one patient has a liver ailment and a heart condition, and another has a liver condition and a problem with obesity, although no heart condition, there are likely to be basic differences in treatment. In remedial reading, we have too many general prescriptions for all. For some strange reason, we often neglect to consider the problems of retarded readers as seriously as the doctor considers the needs of his patients. And yet failure in reading is almost as much a live-or-die situation.

4. *Dichotomy between the remedial program and the classroom program*

Too often the remedial program in a school or school system is a separate function having little relationship to the ongoing classroom program. There is little or no communication between the remedial reading teacher and classroom teachers. Yet, if a student is to really be given adequate help, classroom teachers must play even more important roles than the remedial teacher. The classroom teacher needs to understand his students' remedial programs and be prepared, with the reading teacher's help, to assist each student apply appropriate reading skills to the specific content at hand.

5. *Highly skill-centered emphasis rather than a problem-centered program*

Possibly the most significant factor working against the success of many typical remedial reading programs, especially at this level, is that students cannot recognize immediate and positive applicability to their lives in or out of school. Students seem to learn best when they have some interest in what they are doing, when some need is being met, when some prob-

1051.

lem is being solved. Students should learn to use reading skills, not through reading textbooks, reading workbooks, and reading exercises alone, but in relation to their ongoing content-area demands and through readings which lead to the solution of problems meaningful and central to them.

## Suggested New Concept

This "new concept" of remedial reading, especially in the junior high school, focuses specifically on weakness number five described above. A remedial reading program should present students with an opportunity to fulfill the needs which hammer at them daily. The suggestions which follow capitalize such needs.

1. *The remedial reading teacher,* in order to be an expert teacher of reading, must possess a comprehensive knowledge of those reading skills necessary for reading successes in the content areas represented in the school curriculum. Reading is obviously not a subject nor does it have a content of its own. The remedial reading teacher must know which skills should be worked on intensively and extensively in all subject areas, and which are particularly significant in specific content areas. He should be very aware of the patterns of writing most often used by the writers of textbooks and other materials in each discipline. Such attendance to content does not make the remedial reading teacher a content area teacher. It does make him a reading teacher concerned with the content pertinent to the needs of his students.

The remedial reading teacher should also be aware of and study the kinds of life problems encountered by students in this age group. He should be prepared to help students search for more solutions to their problems through reading.

2. *The reading room,* if it is to make use of materials demanded by the needs of students, must house a variety of textbooks related to the content areas at many levels of complexity. These materials should be chosen and used with the advice and assistance of content-area teachers. The room should also house a variety of materials related to the problems of junior high school students, such as *when to use what manners, how to communicate with adults,* and *how to study a vocation.*

In addition to materials related to specific content areas and particular problems, the reading room should contain many trade books at many reading levels in order to help the student enrich his knowledge and background in various areas. Reference materials of many kinds should also be available so that skill in locating information may be taught when specific needs arise.

3. *The retarded reader* must have a reason for attending remedial reading sessions that transcends the far-flung goal of overall reading achievement which will help in the future. He is well aware of his disability and should be helped to understand its nature in detail. He should understand that in this "new concept" of remedial reading he will be trying to solve problems related to his specific needs; while doing so, he will receive guidance in improving his skills of reading. Sometimes these problems may relate to all content areas, sometimes to a single textbook, and sometimes to a problem bothering the student and one on which he needs to place his attention. Progress in reading, as the student sees it, must then be equated with problem-solution whether in the school situation or outside of it.

4. *The learning situation* should enable students to learn reading skills, apply reading skills, and enhance their self-images with solutions or, at least, pathways to solutions of their problems through the process of inquiry. When students somewhat unsuccessful in social studies are concerned about understanding the concepts behind such a statement as "Egypt became great because it grew up along the shores of a river," here is an opportunity for the remedial session to explore the broader question of why all great civilizations grew up along rivers. It also presents a chance to put attention on vocabulary, syllabication, separating relevant from irrelevant facts, grasping main ideas, and drawing conclusions. When seventh grade boys are concerned about their inability to communicate with adults, this is an opportunity to read expository materials of various kinds searching for major ideas, making inferences, suspending judgment, making evaluations.

Remedial reading suggests correction



of difficulty. Correction will correspond with progress in the solution of reading problems which are realistic to junior high school students.

1052.

337.

# Trends in Identifying and Diagnosing Retarded Readers

H. ALAN ROBINSON



Identification is the screening and selection of pupils who are in need of, and can probably profit from, treatment of their reading disabilities. Identification usually involves the study of results on standardized reading tests, informal reading tests, intelligence tests, listening comprehension tests, and teacher observations. Identification does not involve ascertainment of the exact nature of the difficulty; it merely announces the existence of the disability.

A review of the literature evokes the conclusion that there is an increasing tendency to use the results of group and individual intelligence tests in juxtaposition to reading tests in an attempt to determine reading retardation. This is certainly more realistic and a step beyond the use of grade level or chronological age as a criterion of retardation. Investigators (26; 31), however, caution that properly assessing capacity is a major problem and intelligence tests are only crude guides.

At the present time, individual intelligence tests (especially the WISC) appear to make the most accurate measurement. In general the severely disabled reader obtains a considerably higher score on the Performance Scale than on the Verbal Scale (2; 16; 23). This concept has led a number of investigators to use the non-verbal parts of group intelligence tests with retarded readers. Although such a plan seems feasible, there are some doubts about the comparability of verbal and non-verbal results. One new group test[1] appears to be attempting to parallel more closely non-verbal items with verbal concepts. The test is still in experimental form.

Another trend in the measurement of capacity is the use of group intelligence tests that have both verbal and non-verbal sections or items. This may prove to be a satisfactory procedure although care must be exercised in test choice. One new test[2] purports to use both verbal and non-verbal items in order to reduce "social and cultural bias." An intermediate form of this test contains seven purely non-verbal items out of 110 items.

[1]A.C.E.R. Test WNV., Australian Council for Educational Research, 369 Lonsdale Street, Melbourne, Australia.

[2]American School Intelligence Tests, Bobbs-Merrill Co., Inc., Indianapolis 6, Indiana.

## Diagnosis

Diagnosis, which must always follow identification, ". . . means a careful study of the condition to determine its nature and find out about its causation, with the aim of correcting or remedying the difficulty."[3] It is also important that the diagnostician assess strong points so that treatment may capitalize on specific strengths while attempting to overcome specific weaknesses.

There is a trend toward greater depth in analyzing test results. There is increasing awareness of the concept that the base must be broadened — that diagnosis of reading failure goes beyond the measurement of reading achievement alone. There is more of a realization that "tests provide only data upon which to base a diagnosis . . . they give indications which may serve to sharpen and clarify the judgments teachers make on the basis of their experience, training, and understanding."[4]

Outside of research studies and clinical situations, there does not seem to be a trend, however, toward making use of diagnostic procedures in practical school situations. As one reads reports of reading programs for retarded readers, the identification process is considered to be a diagnostic process. Pupils are grouped according to reading levels and then treated in a prescribed period of time, with prescribed materials and methods. The treatment of retarded readers appears largely to be based on the teacher's training and knowledge regardless of the outcome of the diagnosis *if* a diagnosis is made at all.

We learn from research that diagnosis is essential and that diagnosis loses its value if treatment is not suited to the specific needs and learning methods of the pupils involved. During the past decade, especially, research has demonstrated that we have much yet to learn about diagnosis. We are still fairly certain, as H. M. Robinson indicates, ". . . that no single anomaly is responsible for reading difficulty" (26). But, there is evidence gathered by investigators working in a number of disciplines, that a specific type of

[3]A. J. Harris, *How to Increase Reading Ability*, Fourth Edition. New York: Longmans, Green and Co., 1961, p. 228.

[4]Denis Baron and Harold Bernard, *Evaluation Techniques for Classroom Teachers*. New York: McGraw-Hill Book Co., Inc., 1958, p. 3.

1053

weakness or a group of closely-related neurophysiological weaknesses may play an important role in severe retardation (2; 4; 5; 7; 9; 11; 12; 13; 15; 17; 18; 22; 23; 27; 29; 30; 34).

## Neurophysiology

At this point we do know that major defects or injuries to body organs and the nervous system can cause difficulties in reading. We are not sure of how extensive the damage must be. Rabinovitch (23) indicates that probably the large majority of retarded readers have *primary retardation,* which he defines as impaired capacity without a clear picture of brain damage. He characterizes this as inability ". . . to deal with letters and words as symbols, with resultant diminished ability to integrate the meaningfulness of written material." Preston (22), thinking along the same lines, suggests a single fundamental defect which shows itself in reversals, mirror-writing, mixed hand-eye preference, spatial disorientation, poor visual-auditory memory and discrimination, defective perception of figure-ground relationships. Other investigators (5; 7; 9; 13; 17; 18; 29; 30; 34) have been concerned with related concepts.

There seems to be general agreement that the diagnosis of minimal brain damage is difficult (5; 9; 22; 23; 24). "The problem appears to reflect a basic disturbed pattern of neurologic organization" (23) rather than an easily measurable static condition. Very frequently, in these cases, the usual clinical neurological examination is negative. Reitan and Klove consider a completely detailed neurological examination ". . . of crucial significance in patients with inconsistent or equivocal findings" (24). Harris suggests that difficulties in binocular coordination ". . . may be symptomatic of neurological defects or deviations that may be fundamental to the learning problem" (12).

A number of investigators (4; 7; 8; 11; 12; 18; 31; 33; 34) have been concerned specifically with visual and auditory perception in relation to poor reading and/or neurologic problems. Goins (8) developed tests of visual perception and found that successful reading depends on the ability to recognize total configuration and discriminate the parts. Kephart (18) found that slow learners could recognize the total configuration but got into difficulty with word analysis because they couldn't break down something that did not, for them, have parts to begin with. Harris (12) indicated the need for more accurate tests, but suggested a relationship between the problems in eye coordination, visual perception, and brain injury.

## Wechsler Intelligence Scale for Children

WISC

For the past ten years investigators have concerned themselves with the profile of subtests on the WISC in relation to retarded readers (1; 3; 6; 10; 14; 16; 21; 25; 28). Although there have been some differences in results, enough similarity seems present to further investigate the function of the profiles as diagnostic tools.

The findings appear to show more agreement in the profile of weak areas than in strong. Coding and Arithmetic scores are consistently low with some tendency for weakness in Digit Span and Information. Areas most often high are Picture Completion, Picture Arrangement, and Block Design. Dockrell (6) hypothesized that the low score in Coding might be due to the close resemblance between it and reading and writing. Good visual discrimination and memory are needed. M. S. Sheldon and Garton (28) felt that the Coding subtest has some similarity in process to word recognition. Kallos, Grabow and Guarino (16) suggested that "retarded development of motor-visual skills, such as those involved in Coding, may be a primary cause of reading disability."

These investigators thought that the low Information and Arithmetic scores could ". . . reflect variables in the home and school environment which promote reading disability (16)." Neville (21) felt that these subtests are related to school-type tasks and limited ability to concentrate. He also suggested that the high scores were made on subtests somewhat removed from formal learning.

## Diagnostic Tests

There appears to be little doubt that auditory discrimination and blending are

positively related to reading achievement, especially in the lower grades (4; 7; 33). There is a research trend, not yet visible in school reports, toward using the results of such tests of auditory discrimination, Wepman tests of auditory discrimination, and possibly the auditory blending test by Roswell and Chall, as bases for differentiating reading instruction. Wepman (33) suggests grouping visual and auditory learners separately at least at the beginning of instruction. Chall (4) suggests the use of the auditory blending test to separate those with word-analysis problems from those with comprehension difficulties.

When McCullough (19) found that children apparently knew letter sounds but had difficulty applying the knowledge, she designed a test in an attempt to pinpoint deficiencies. The McCullough Word-Analysis Test (Ginn and Co.) is now in an experimental edition. It is designed for individual or group diagnosis for grades four through college level. McCullough feels that this test does a more extensive diagnostic job than those now available and provides clear cross-references among subtests to aid in classifying types of difficulties.

H. M. Robinson indicates that the new Gray Oral Reading Tests (Bobbs-Merrill) will be ready within a year. There will be three or four comparable forms and four comprehension questions will accompany each paragraph. Norms will be available for grades one through twelve and later for college freshmen.

S. Taylor reports the beginnings of experimentation on an Ocular-Motor Test (Educational Development Laboratories). Picture materials will be placed on targets and the activity of the eyes of beginning first graders will be photographed on The Reading Eye, an eye-movement camera. These pupils will be followed through the first two years of school. The investigators will be looking for accuracy and direction of fixations, general mobility of the eyes, efficiency in moving laterally and vertically, accommodative flexibility, and the general pattern of visual attack.

## Classroom Emphasis

Obviously, the classroom teacher or reading consultant cannot complete a diagnosis for the severely retarded reader without the help of other specialists. But following a preliminary diagnosis, further study is always necessary. The school personnel working with the severely retarded reader daily must continuously appraise through every means possible.

One means of appraisal used rather widely today is the informal reading inventory. The inventory is a useful tool in diagnosis. Its use as a "level-finder" alone is, however, almost as limited as a lone score on an achievement test. As demonstrated in so many ways, and reported recently by Murphy (20), children may achieve similar gross scores or levels and differ markedly in specific skill areas. The individual, his specific cluster of needs, and a suggested program of treatment must be considered in any diagnostic procedure of significance.

### REFERENCES


1. Altus, G. T., "A WISC Profile for Retarded Readers," *Journal of Counseling Psychology,* XX (April, 1956), pp. 155-156.
2. Austin, M. C., Bush, C. L., and Huebner, M. H., *Reading Evaluation.* New York: Ronald Press Co., 1961.
3. Beck, F. J., "The Wechsler Intelligence Scale for Children Among Retarded Readers." Unpublished Master's Paper, University of Chicago, Chicago, Illinois.
4. Chall, J., *Auditory Blending: A Factor in Success in Beginning Reading.* Paper presented at Elementary School Reading Session, American Educational Research Association, Feb. 19, 1962.
5. Delacato, C. H., *The Treatment and Prevention of Reading Problems,* Springfield, Illinois: Chas. C. Thomas, 1959.
6. Dockrell, W. B., "The Use of Wechsler Intelligence Scale for Children in the Diagnosis of Retarded Readers," *Alberta Journal of Educational Research,* VI (June, 1960), pp. 86-91.
7. Goetzinger, C. P., Dirke, D. D., and Baer, C. J., "Auditory Discrimination and Visual Perception in Good and Poor Readers," *Annals of Otology, Rhinology, and Laryngology,* LXIX (March, 1960), pp. 121-136.
8. Goins, J. T., "Visual Perceptual Abilities and Early Reading Progress," Supplementary Educational Monographs, No. 87. Chicago: University of Chicago Press, 1958.
9. Goldenberg, S., "Using Psychological Tests to Detect Neurological Differences in Children." In J. Allen Figurel (ed.),


1055.

*Reading for Effective Living*, International Reading Association Conference Proceedings, III, 1958. New York: Scholastic Magazines, 1958, pp. 121-126.

10. Graham, E. E., "Wechsler-Bellevue and WISC Scattergrams of Unsuccessful Readers," *Journal of Consulting Psychology*, XVI (August, 1952), pp. 268-271.
11. Harris, A. J., "Perceptual Difficulties in Reading Disability." In J. Allen Figurel (ed.), *Changing Concepts of Reading Instruction*, International Reading Association Conference Proceedings, VI, 1961. New York: Scholastic Magazines, 1961, pp. 282-290.
12. Harris, A. J., "Visual Sensation and Perception of Disabled Readers," *Journal of Developmental Reading*, IV (Summer, 1961), pp. 246-253.
13. Harvie, M. K., "Future Trends in Testing and Treatment." In J. Allen Figurel (ed.), *Reading in a Changing Society*. International Reading Association Conference Proceedings, IV, 1959. New York: Scholastic Magazines, 1959, pp. 139-142.
14. Hirst, L. S., "The Usefulness of a Two-Way Analysis of WISC Sub-Tests in the Diagnosis of Remedial Reading Problems," *Journal of Experimental Education*, XXIX (December, 1960), pp. 153-160.
15. Holmes, J. A., "The Substrata-Factor Theory of Reading: Some Experimental Evidence." In J. Allen Figurel (ed,), *New Frontiers in Reading*, International Reading Association Conference Proceedings, V, 1960. New York: Scholastic Magazines 1960, pp. 115-121.
16. Kallos, G. L., Grabow, J. M., and Guarino, E. A., "The WISC Profile of Disabled Readers," *Personnel and Guidance Journal*, XXXIX (February, 1961), pp. 476-478.
17. Kawi, A. A., and Pasamanick, B., *Prenatal and Paranatal Factors in the Development of Childhood Reading Disorders*. Monograph of the Society for Research in Child Development. Yellow Springs, Ohio: Antioch Press, 1959.
18. Kephart, N. C., *The Slow Learner in the Classroom*. Columbus, Ohio: Chas. E. Merrill Books, 1960.
19. McCullough, C. M., *A Comparison of Children's Knowledge of Letter Sounds with Their Ability to Use It*. Paper presented at Studies of Language Arts and Reading Session, American Educational Research Association, February 21, 1962.
20. Murphy, H. A., *Differing Instructional Needs for Children of Similar Reading Achievement, Grades Two, Four, and Six*. Paper presented at Elementary School Reading Session, American Educational Research Association, February 19, 1962.
21. Neville, D., "A Comparison of the WISC Patterns of Male Retarded and Non-Retarded Readers," *Journal of Educational Research*, LIV (January, 1961), pp. 195-197.
22. Preston, R. C., "Research Concerning Congenital Alexia at the University of Pennsylvania Reading Clinic." To be published in *Clinical Studies in Reading III* by Robinson, H. N., and Smith, H. K.
23. Rabinovitch, R. D., "Reading and Learning Disabilities," Chapter 43. In S. Arieti (ed.), *American Handbook of Psychiatry*, Vol. I. New York: Basic Books, Inc., 1959, pp. 857-869.
24. Reitan, R., and Klove, H., "Identifying the Brain-Injured Child." To be published in *Clinical Studies in Reading III* by Robinson, H. M., and Smith, H. K.
25. Robeck, M. C., "Subtest Patterning of Problem Readers on WISC," *California Journal of Educational Research*, XI (May, 1960), pp. 110-115.
26. Robinson, H. M., "Corrective and Remedial Instruction." In Nelson B. Henry (ed.), *Development In and Through Reading*, Sixtieth Yearbook, Part I, National Society for the Study of Education. Chicago: University of Chicago Press, 1961, pp. 357-375.
27. Shedd, C. L., "The Diagnosis and Treatment of Symbolic Confusion." In J. Allen Figurel (ed.), *Changing Concepts of Reading Instruction*, International Reading Association Conference Proceedings, VI, 1961. New York: Scholastic Magazines, 1961, pp. 97-102.
28. Sheldon, M. S., and Garton, J., "A Note on 'A WISC Profile for Retarded Readers,'" *Alberta Journal of Educational Research*, V (December, 1959), pp. 264-267.
29. Silver, A. A., and Hagin, R., "Specific Reading Disability: Delineation of the Syndrome and Relationship to Cerebral Dominance," *Comprehensive Psychiatry*, I (April, 1960), pp. 126-134.
30. Smith D. E. P., and Carrigan, P. M., *The Nature of Reading Disability*. New York: Harcourt Brace & Co., 1959.
31. Spache, G. D., "Classroom Reading and the Visually Handicapped Child." In J. Allen Figurel (ed.), *Changing Concepts of Reading Instruction*, IRA Conference Proceedings, VI, 1961. New York: Scholastic Magazines, 1961, pp. 93-97.
32. Spache, G. D., "Clinical Diagnosis in the Classroom," *Reading Teacher*, XIV (September, 1960), pp. 14-18.
33. Wepman, J. M., "Auditory Discrimination, Speech, and Reading," *Elementary School Journal*, LX (March, 1960), pp. 325-333.
34. Zoepfel, M. M., "Auditory Discrimination in the Learning Difficulties of Children with Neurological Disabilities," *The Reading Teacher, XV* (November, 1961), pp. 114-118.

1056.

338.

Vol. 8, 63

## H. Clinical Aspects of Reading

# 1. Are Emotional Problems a Block to Reading Achievement?

139.

FLORENCE G. ROSWELL

In conferring with teachers and psychologists one hears over and over again, "Until his emotional problems are cleared up, there is no point in attempting to teach this child to read."

This opinion is so widely held that its implications must be examined carefully.

### Complex Nature of Emotional Disturbance

First, one must reflect on the meaning of the term emotional disturbance. Some of us are all too prone to use it in an undifferentiated way. However, it is important to recognize that emotional disturbance differs in degree and in complexity. To make a searching analysis of the nature of the problem requires diagnosis by a psychologist or psychiatrist. Thus, merely saying that a child has an emotional block towards reading does not describe anything except that somewhere along the line he has been given up as hopeless regarding his ability to learn to read. Furthermore, the impact of personality problems on ability to learn varies from child to child. In many cases, as we all know, reading proficiency is adversely affected. However, there are countless other cases where children who can read very well do a prolific amount of reading to escape from the problems of living. Another aspect frequently overlooked is that emotional disturbance need not necessarily be the *cause* of reading disability. It may very well be the *result* of the constant frustration, humiliation and anxiety a child feels as the result of failure in school. Since success in school is crucial to a child's sense of well-being, failure can shatter his self-esteem and engender such deep feelings of unworthiness that the effect on the child's functioning can become all-pervasive. In such cases, the emotional problem cannot be alleviated until the child's functioning in school improves. Moreover, emotional disturbance may be present but not necessarily causal in the development of the reading disability. Finally, we have increasing evidence that emotional disturbance is only one of many major reasons for lack of success in reading.

1057.

## Children with Emotional Problems Can Learn to Read

Despite all the ramifications of the problem, we believe that, in general, even if a child's ability to learn is impaired to some extent because of emotional disturbance, all avenues to learning are not closed.

This statement is based on experience with large numbers of cases seen at our clinic, where comprehensive diagnostic examinations of these children revealed deep-seated problems. Most of the children were in dire need of psychotherapy, which for one reason or another was not obtainable. Yet, they were able to learn to read. In fact, those of us who have worked with quite disturbed children have even seen positive changes in their personalities and general adjustment as failure was lessened and as school became more bearable.

I do not mean to imply that teaching such children is easy. It is very difficult. Yet ways can and must be found to reach them.

Needless to say, when a teacher is faced with a difficult problem, she uses whatever resources are available for securing psychological diagnosis and treatment where indicated or specialized remedial instruction, where available. Unfortunately, facilities for such help are so limited or so costly that usually the problem devolves completely upon the classroom teacher for solution.

## Effective Teaching Is Therapeutic

First, it is important to restore teachers' faith in their own ability to teach children who show evidence of emotional difficulties. Actually, good teachers have always been able to help their pupils overcome problems and have been a source of stimulation and inspiration to them. This is because good teaching incorporates many important psychotherapeutic principles.

A constructive relationship with an understanding teacher can be an extremely meaningful experience to a child who has failed. This implies that the teacher accepts the child as a worthwhile human being worthy of respect despite his failure in reading. She is uncritical of his performance, recognizes that he is bound to make mistakes and thus makes no negative comments. This immediately lessens anxiety and frees the child to use his capacities productively. She finds the level at which he can succeed, tries to ascertain whatever strengths he has and builds from there on. She communicates to the child that he is capable of learning. This may be accomplished through concrete illustrations of his progress and by her genuine faith in his ability to keep growing. She is not so permissive that the child is unsure of what is expected of him. Rather, she has a structured program based on his needs which she paces according to the child's ability to grasp instruction. She makes every attempt to find suitable materials that are mature in format which especially appeal to the child so that he feels something new and different is being done to help him.

## Teaching an Emotionally Disturbed Child

As an illustration let us consider Brett who was 11 years old in fifth grade, reading at second-grade level before any of his teachers tried to help him directly with reading. They were all aware of his extremely distressing and rejecting home environment and felt sorry for him. His former teacher told the school psychologist, "Reading, that's the least of his problems! How can anyone expect him to learn with all he has to contend with!" In so doing she simply had not thought through the negative effect on this boy of her sympathetic but unconstructive approach. Thus, Brett was neglected by well-meaning teachers until his fifth-grade teacher recognized that something had to be done to help him. She requested guidance from the school psychologist and reading consultant.

The psychologist described Brett as a reticent, somewhat distant boy, who felt lonely, isolated and trapped. She pointed out that environmental circumstances were such that no major changes could be effected in it. Thus the school was his only refuge.

With help from the reading specialist,

1058.

Brett's teacher undertook to work with him individually at regularly scheduled sessions during the week. After some informal testing she interpreted to him what his specific needs were and outlined the various procedures she planned to use to help him cope with his reading difficulties. She also showed him reading materials which might appeal to him, which were mature in format, but at a suitable readability level. Thus, instead of his problem being something intangible, she concretized it for him. This made it appear more manageable to him so that he was able to develop a glimmer of hope. As he became aware of his teacher's sincere interest in him, his sense of isolation diminished. At least there was one person in his life who cared enough to try to help him. The fact that somebody believed in his ability to succeed was positive motivation. After several months of remedial help Brett reached the point where he could do some independent assignments which enabled him to contribute to class discussions. Gradually, he became more attentive, alert and responsive regarding school work.

Was Brett emotionally disturbed? Certainly. But in his case little could be done to alleviate his problems. However, by giving him the supportive help he needed and making it possible for him to achieve in school, Brett's teacher paved the way for helping him become a more adequate individual.

## Maturational Lag And Emotional Disturbance

Carl's emotional problem was of a different nature. He was eight years and six months, and in third grade when he was referred for psychological examination by his school. His teachers noted that despite the fact that they used a systematic phonic approach with much review and repetition, Carl had great difficulty learning to read. By third grade, he could handle only a first-grade reader.

The psychologist found that there was a history of delayed speech with infantile speech patterns still apparent. The kindergarten teacher reported many evidences of inferior fine and gross motor coordination.

Psychological examination revealed that Carl had at least high average intelligence. He exhibited some evidence of difficulty in tasks involving analytic-synthetic ability and visuo-motor skills. During reading tests he was able to recognize words by a whole word approach only. Thus he had developed some sight vocabulary. However, he was completely unable to blend sounds into words. These findings suggested that perhaps Carl belonged to that group of children who show maturational lag. We find that this may be one of the major causes of reading disability and probably of primary significance in his problem.

Thus the manifestations of emotional disturbance which were reported by all of Carl's teachers were to a great extent the *consequence* of the continued emotional strain he suffered daily in school. Reading presented a problem because he was not physiologically ready to learn by the phonic method which was chiefly employed.

With regard to reading, remedial instruction was instituted at once. Methodology was used which did not involve blending of sounds into words. Carl gradually learned to read.

The case of Carl is another illustration where a child was able to profit from reading instruction in spite of his many problems. Actually, Carl's difficulty could have been identified in first grade. He might have then been spared the secondary emotional problems which were an outgrowth of his unfortunate school experiences. In this case psychotherapy without remedial help would have had minimal effectiveness.

## A Definitive Program Aids Emotionally Disturbed Children

Let us now consider how Miss Dee, a very conscientious, sincere, warmhearted teacher handled a fourth-grade class of 30 children, all of whom were reading between first- and third-grade levels. At the beginning of the school term, Miss Dee felt overwhelmed and almost defeated before she started because she considered her pupils too disturbed, restless and uninterested to be able to respond to formal instruction.

1059.

Since their language ability was limited, she had the children cut out a wide variety of pictures and talk about them to develop vocabulary. The children liked the activity very much, but Miss Dee realized that this was not very valuable in improving reading skills. At this point she requested help.

Miss Dee first needed assurance that she really could reach her pupils through a well-organized program based on their needs. In conferences with her we discussed how emotionally disturbed children are responsive to structure and order in a classroom. Also, how children's anxiety and restlessness may be kept at a minimum when limits are set for them. Furthermore, learning is facilitated when children are presented with meaningful instruction which they can grasp readily. Then Miss Dee was given help in analyzing the extent of the problem through the use of informal word analysis inventories and open book tests. A well-defined program was subsequently drawn up based on test findings. Miss Dee was able to carry it out systematically. She reported during the spring term,

> I never suspected last September that this could have happened. The tone of the class has changed since the reading program was organized. The children's attitude toward reading is positive. Sixteen out of 30 children are active public library members. The two poorest readers who were functioning at high first-grade level are now reading third-grade materials. All the children have shown considerable progress.

What has happened from the standpoint of emotional problems and learning? From Miss Dee's observations, there is no doubt that the children in her class exhibited a wide range of emotional difficulties. However, as long as she had no confidence in the children's ability to learn, they sensed this and very little learning took place. For example, in this class when the children were kept busy doing relatively unimportant activities, the teacher unwittingly communicated to the pupils that that was about all she felt they were capable of accomplishing. On the other hand, as soon as Miss Dee was helped to work out a more suitable program and felt more positive about the children's potential for achievement she conveyed to them her faith in their ability to learn. As she felt secure in what she was teaching, the children got a feeling of direction and security from her. Furthermore, their restlessness decreased as she became less permissive and more structured in her approach. With the use of appropriate methods and materials which encouraged learning and with heightened expectations on her part regarding their ability to learn, their competence in all aspects of reading developed.

One can surmise that along with the marked improvement in functioning which this class showed, there were also concomitant gains in personality areas.

We conclude that emotional disturbance need not be a block to reading achievement. This is probably because emotional disturbance is not a static condition. It is always shifting through interaction with the environment. In all of the cases presented, the emotional problems were either intensified or alleviated by the school situation. Since the school plays such a powerful role in the child's life we must continue to search for ways of reaching the child, as early as possible, and building on whatever strengths he has so as to prevent the all-encompassing and destructive effects of failure.

1060.

Vol. 9, 64

339.

# 2. Psychotherapeutic Principles Applied to Remedial Reading

145.

FLORENCE G. ROSWELL

A CHILD with a reading disability has experienced considerable frustration, failure, and despair. Therefore, the use of appropriate reading techniques, although very important, is not enough.

Incorporating some fundamental psychotherapeutic principles into the teach-



ing of the child may help diminish his suffering and sense of inadequacy, thus freeing him to utilize his energies more productively.

A constructive relationship with a teacher can be extremely significant to the child. The teacher's belief in the child's dignity and worth is communicated to him through her total acceptance of him despite his failure in school. Moreover, she conveys to him her complete faith in his ability to learn to read. She alleviates his anxiety, to some extent, by assuring him that errors in reading are inevitable at the outset. However, his mistakes will be used in a positive way as indications of the kinds of help he needs.

In developing a satisfactory relationship, a friendly, orderly atmosphere is reassuring and effective. A great deal of conversation between teacher and pupil is not necessary and may even interfere with the instruction. A child need not confide in his teacher regarding his personal problems. Attempts to draw the youngster out are frequently met with rebuffs and may cause resentment on the child's part. However, should he wish to discuss his problems, the teacher listens respectfully, comments naturally and appropriately, but is careful not to stir up anxiety by expressing her own judgments or making interpretations.

Establishing good rapport is based on subtle interpersonal factors. Sometimes it is developed through talking, sometimes through listening, frequently by means of a smile of approval or even merely an expression of understanding.

As the teacher's empathy for the child develops, it is essential that she maintain her objectivity. Otherwise, she becomes overinvolved with the child's problems, which could adversely affect his learning. Then the child finds himself in the precarious position of having to work not only for himself, but to please his teacher also. Thus, he cannot make mistakes freely as was originally suggested by his teacher, and tension might again be engendered.

A structured, well-defined program is advisable and particularly important for the disturbed child. It introduces order into the learning situation and keeps anxiety at a minimum. Setting limits for such a child is also helpful in order that he understands what is considered acceptable behavior. Then he does not have to keep trying the teacher out to see how far he can go. Instead, he can attend to the task at hand.

When a child emphasizes that he is a failure and believes that he is hopeless, the teacher can help externalize his difficulties for him. She interprets his strengths and deficiencies in reading in terms that are understandable to him. In collaboration with him, she sets up attainable goals.

The program itself must convey meaning to the child. He is shown how each activity is related to his specific needs. The teacher then indicates the specific methods and materials that she plans to use to help him achieve these objectives. Thus by concreting his problem for him, it is taken out of the disquieting realm of the unknown, thereby diminishing his phantasies and fears that there may be something seriously wrong with him. Instead, his problem is clarified to some degree, affording a measure of relief and also reviving a feeling of hopefulness in him.

Furthermore, every attempt is made to arouse his interest in reading through the judicious choice of materials. Very often the content of the reading matter brings about emotional growth. Children frequently identify with characters in stories and biographies because their conflicts, loneliness, and patterns of success and failure seem similar to their own. Such material can promote emotional release, self-understanding and insight into others. On the other hand, stories that are humorous or sheer nonsense may contribute to an easy, relaxed relationship.

Providing children with a wide selection of topics and subject matter can also have a salutary effect on personality development. Most children with reading disability are not only emotionally impoverished, but are also intellectually sterile. Thus, through broadening their knowledge and heightening their awareness of the world around them, these children can be brought into closer touch with reality and may also be helped in extending concept formation.

Effective reading instruction is therapeutic and can have a far-reaching influence on the child. It could liberate con-

147.

structive forces within him, which may eventually lead to self-realization, a universal human goal.

1061.

340.



## 6. Diagnosing Cases of Reading Disability with Suggested Neurological Impairment

GILBERT B. SCHIFFMAN
Maryland State Department of Education

THERE EXISTS among the population of poor academic achievers a group of children of near-average intelligence or higher who experience persistent difficulty in learning to read in spite of adequate exposure to pedagogic methods which are successful in teaching the great majority of children. The identification and remediation of these learning problems present a real challenge to educators; children with such disabilities are high-risk candidates for long-term school difficulties in both academic achievement and school adjustment. Whereas achievement tests and group intelligence tests often place them in the borderline or defective intelligence categories, careful, individual mental-ability testing with appropriate clinical instruments often reveals normal intelligence or higher. In many instances, the problems presented by such youngsters are of such a complex nature that various other professionals may be involved, including the psychologist, psychiatrist, pediatrician, neurologist, and social worker.

Within the past decade there have been increasing interest and focus upon the various possible contributing factors to learning disabilities. It may be safely stated that the present state of knowledge and understanding of these problems, as well as agreement among the various disciplines involved, is far from satisfactory.

It is a matter of some considerable importance to establish the cause or causes of learning problems, including reading disabilities, as accurately as possible. For example, there is still a substantial pedagogic tradition which holds that all such academic failures are due to poor teaching. If this opinion is so, then steps need to be taken to assure that such pedagogic measures are corrected. If these learning problems are the result of intrapsychic stress, resulting from aberrent child-rearing practices and parent-child conflict, then clearly child-guidance workers have a central role to play in both treatment and prevention.

Of considerable current interest is whether minimal brain disfunction might exist in some of these children. In this context the term minimal does not refer to a necessarily minor or unimportant impairment but rather to (presumed) neurological involvement which is not readily and grossly demonstrated. The diagnostic and descriptive categories included under the term "minimal brain disfunction" refer to children of near intelligence, average, or above-average general intelligence with learning and/or certain behavior abnormalities ranging from mild to severe, which are associated, subtle, deviant functioning of the central nervous system.

These may be characterized by combinations of deficits in perception, conceptualization, language, memory, control of attention, and impulse or motor control.

These aberrations may arise from genetic variations, biological irregularities, prenatal brain insults, illness or injuries sustained during the years critical for the development and maturation of the central nervous system, or from unknown cause. During the school year varieties of special learning disabilities are the most predominant manifestations.

Thus, broadly considered and as here used under such a classification, would be included the so-called brain-injured child, the category of minimal brain damage, chronic brain disfunction, as well as primary reading disability, specific language disorder, and dyslexia.

Our interest in children with learning disabilities derives from an eight-year experience in an interdisciplinary-diagnostic clinic (Central Evaluation Clinic for Children, University of Maryland Hospital) where we have had the opportunity to study large numbers of children referred because of school failure. In this setting each child is studied thoroughly by a pediatrician, neurologist, psychologist, audiologist, and speech pathologist. Electroencephalograms are obtained routinely; psychiatric and special educational consultations are freely utilized. Working

1062.

in such an interdisciplinary setting, the staff has a unique opportunity to gain first-hand experience with school problems, to exchange ideas with the several disciplines involved, and to cultivate an interdisciplinary exchange of information and ideas. It has also been possible to view in broad prospective some of the conflicting viewpoints and interpretations of the existing body of knowledge about children with various kinds of problems in school adjustment and academic achievement.

It is not an infrequent occurrence that the same child will be given diagnostic labels which are seemingly at considerable variance when studied in different clinical settings. For example, recently in Baltimore a 7-year-old boy was studied in three highly regarded centers within a period of several months: In one clinic he was called neurologically impaired with an aphasio-aphasoid central-language problem. In another he was diagnosed as schizophrenic; in the third he was called chronic brain syndrome with organic hyperkinetic-behavior disorder. The reasons for such semantic confusion and apparent difference of opinion are not difficult to discern since the child had multiple problems. Each consultant labeled the boy according to the major problem as he perceived it. Without attempting judgment about the accuracy of any of the diagnostic terms used, it does seem appropriate to ask if this single example reflects our present state of knowledge and understanding of child development and, furthermore, if we are aware that such confusion exists.

Out of their experience with large numbers of children who have severe reading problems, the staff of the evaluation clinic concurs with the school of thought which holds that there exists within the community of slow learners and poor readers a specific group which has particular difficulty in learning the conventional meaning of symbols, which condition is of constitutional and not of environmental origin and is often genetically determined. The condition is much more common in boys than in girls and may be associated with mixed laterality, delayed determination of handiness, motor awkwardness, and directionality confusion. Detailed family history frequently reveals a similar reading, speech, or language-problem disorder among near relatives.

However, since the group of children studied in the Central Evaluation Clinic for Children was a highly selected and screened population which had been referred for evaluation, it was decided to study a large number of children with reading disabilities found in one large public-school system. Accordingly, 240 children with severe reading problems which could not be remediated by supplementary pedagogic methods were studied in an experimental project in an effort to clarify the nature and characteristics of these children. This research attempted to compare the reading improvement of (a) remedial pupils who remained in the developmental-reading program, (b) remedial pupils who received corrective-reading instruction, and (c) remedial pupils who received remedial-reading therapy. The study compared the reading improvement of the three groups of pupils after one year of instruction and again one year after termination of instruction. These programs are defined as follows:

- *The developmental program* is a program providing systematic instruction at all school levels and in all content areas for those who are developing language ability commensurate with their general capacity levels. This developmental phase is the responsibility of every teacher, affects all of the pupils, is provided for in the regular curriculum, and is a continuous ongoing process.
- *A corrective-reading program* is for children without an associative-learning disability. The children are usually taught in small groups and special classes. Corrective reading is also taught in the classroom at times. A child may be unable to pronounce words or he may use words readily without comprehending their meanings.
- *Remedial-reading programs* are, essentially, clinical programs for children with severe-reading difficulty who are unable to make associations between visual (printed) symbols and their experiences. Other labels for this category are specific reading disability, congenital word blind-

1063.

ness, primary reading retardation, and developmental dyslexia. The adjective "specific" calls attention both to the circumscribed nature of the disability and to our ignorance of its cause. Specific reading disability may be defined as the failure to learn to read with normal proficiency despite conventional instruction, a culturally adequate home, proper motivation, intact senses, normal intelligence, and freedom from gross neurologic defect. Pupils with these problems demand individual and small-group instruction on a clinical basis by specially trained personnel. It is for these that the tactile and kinesthetic techniques are usually necessary.

**Description and Selection of Pupils**

Each of these pupils has the following characteristics in common: 1. Evidence of near-average, average, or higher-than-average intelligence as determined by the WISC; and 2. Severe reading retardation with word-recognition problems as determined by informal and standardized achievement tests.

Table I presents a picture of the average remedial reader found in the study. The pupil is a male who entered the first grade at the chronological age of 5 years, 11 months and with one sister and one brother. He has a poor reading-readiness score which indicates a delay in the initial-reading experience. He is in the 6th grade reading below the second-grade level and has repeated somewhat less than one time. He has severe word-recognition problems with a limited sight vocabulary and few word-analysis skills to unlock unknown words. His health, attendance, and discipline are satisfactory. There does not appear to be any significant Wexler subtest profile. Spelling achievement scores are below reading- and arithmetic-achievement grade levels as determined by the wide-range reading achievement test.

**Sex Ratios and Maturational Factors**

Most observers agree that learning problems are far more common in boys than in girls. (Table II) In fact, the study of distributions of boys and girls in homogeneously grouped classes reveals the unequal sex distribution in which more boys are in the slower-moving groups and more girls are in the faster-moving groups. (Table III) The reason commonly given for this distribution is that child-rearing practices and other social pressures centering largely about the role of the male child as the potential primary source of economic support for the family cause emotional problems which lead to his learning problems.

Benson has pointed out that physiological and maturational factors may play an equally important role since the human-male organism matures at a slower rate than does the female. Thus, she advances the hypothesis that some of the behavior disorders and learning problems among boys may be the result of stress response of an immature organism to the demands of a society which fails to make appropriate provision for this biological-age differential.

Direct methods of measuring maturational rates of the central nervous system are lacking, but it is of interest to consider systems of other organs in which more precise techniques of assessing developmental-maturational processes are available. One such system, the maturational rates of which can be readily measured accurately, is the bony skeleton. It is of interest to note that the secondary centers of ossification appear consistently later in boys than in girls and that the average difference for those centers appearing between 4 and 12 years of age amounts to 20 months. (Table IV) If such maturational difference occurs in the central nervous system, this factor would lend additional support to Benson's hypothesis that biological and physiological differences between girls and boys place the human male at a disadvantage from the readiness point of view.

It is appropriate and necessary to point out at this time that one of the major problems inherent in the identification of reading disabilities is that traditionally educators, physicians, and other professional workers concerned with the problem have relied almost exclusively upon capacity and achievement scores and standardized tests. A severely retarded reader is considered to be a pupil retarded two or more years by standardized tests. This rule-of-thumb-screening criteria can be dangerous and misleading. Standardized tests of reading achievement do not

1064.

always indicate the pupils' instructional-reading levels.

In our study, reading-achievement scores compiled within a four-month period before instruction was initiated demonstrated the wide variation between standardized and informal tests. There appears to be about two years' difference between the standardized and informal evaluation. (Table V)

The picture is just as confusing concerning capacity evaluations. Most of the measuring instruments are tests that require reading, yet often they are given to students who cannot read or have not learned to read effectively. There is considerable variability between the different capacity-measuring instruments. There also does not appear to be a typical profile of Wexler's sub tests for these remedial readers. The performance section is significantly higher than the verbal section in many cases. (Table VI) The intercorrelations of these tests and the WISC for the 240 remedial readers were considerably smaller than the Wexler standardization and expectations. In fact, 20 of the 55 correlations in the study were negative. (Table VII) The factor-analysis possibly might reveal some cluster, but the present data does not indicate a specific profile.

Psychological testing suggested the possibility of an organic, physiological contributing factor in seventy of the remedial-clinic type of retarded readers. The high incidence of possible neurological disability (as inferred from psychological testing) that appears in the population of the study (29 per cent) is not typical of its distribution in the normal population.

## Management and Evaluation

The 80 pupils in the remedial program were given the complete remedial program through the 1961-1962 school year. This program included appropriate pedagogical remediation, individual or group psychotherapy, and family counseling.

The 80 pupils in the corrective program received the standard corrective program at their local schools.

The 80 pupils in the regular developmental program remained in their classrooms and received no additional instruction outside of the normal developmental-reading program.

During the 1962-63 school year the pupils who have been in the remedial and corrective programs returned to their regular classroom developmental-reading program.

Reading evaluations were administered at the beginning of the study in September, 1961, at the end of the remediation period in June, 1962. They were again studied at the end of the study in June, 1963.

## A Program

In an actual program in a clinic the elementary child reports to the building at 9:00 each morning and is picked up at 11:40 a.m. and returned to the regular school for the afternoon session. The parents must provide transportation. The secondary students are picked up at their regular school each day and transported to the clinic by 12:45 p.m. Classes are dismissed at 3:30 p.m., and parents make arrangements to call for their children at that time.

Seven PTA meetings are scheduled during the school year. Three meetings are conducted by the reading clinician who conducts a highly structured PTA meeting. The other four meetings are headed by a visiting teacher trained in Family-Life Discussions. The parents have an opportunity to discuss some of the things—either old or new—that have been bothering them. Here the parents see that they are not alone; other parents have similar problems; other children share personality changes. In many cases parents can help one another solve some of these pressing issues. The whole program is conducted in a non-directive, relaxed fashion and acts as a type of catharsis. The psychologist and reading clinician are there as observers and only join in as consultants when requested by the parents.

Whenever possible, the programs are so structured in the local school that the youngsters attend classes and participate in activities requiring limited reading and writing skills. This programing, of course, is much easier to do in the secondary program. However, we have found in the fourth, fifth, and sixth grades where reading is conducted in the morning that the

1065.

pupils can meet success in the afternoon in some subjects that do not bear directly on the reading area of the language-arts program. Ideally, the reading specialist will work with about seven youngsters in both the morning and the afternoon sessions.

Grouping as far as instruction is concerned is very fluid. It varies with the immediate needs of the individual.

The psychological approach utilizes the tracing or VAKT (Visual, Auditory, Kinesthetic, Tactile) techniques instead of the VA used in the developmental and corrective programs.

Three pedagogical techniques are considered in the remediation of these severely retarded readers: (1) The basal and the language-experience approach using V and A, (2) The Fernald approach using VAKT in analytical breakdown, and (3) The Gillingham approach using VAKT in a synthesis attack.

For some time, every remedial pupil was exposed to one specific technique. The selection of the particular pedagogical procedure depended to a large extent on the training of the clinician and the bias of the diagnostic center. Educators embrace the philosophy of individual differences but too often accept the "one right way" of teaching reading to all retarded readers. Pupils and teachers alike have had to adjust to the one procedure instead of the teacher and the technique adjusting to the needs of the child. Too often teachers have followed one policy blindly because some authority has said, "This is the way."

Experience has demonstrated the fact that there is no magic panacea for all children. These severely retarded readers have one consistent syndrome, besides their retardation, and that is inconsistency. The clinician must select the appropriate technique through diagnostic teaching and use all sensory pathways to reinforce the weak memory patterns. The method or combination of methods that helps the child is the right method.

The program is so geared that the youngsters have a wide variety of high interest, low reading-level material with a variety of supplementary materials such as tape recorders, filmstrips, slide projectors, hand and eye coordinators, primer typewriters, and listening-parts material. During the day, a certain number of youngsters will visit with the psychologists for individual and group therapy.

Extensive studies conducted during the program have attempted to evaluate the effectiveness of remedial reading with psychotherapy in the public-school system. Unfortunately, it has been impossible to effectively control the variables for large groups of children and psychologists. The objective evidence at this time is still inconclusive. Nevertheless, many teachers are of the opinion that some therapy or assistance must be given to all severely retarded readers.

The reading teachers in the program have constant conferences either by telephone, letter, or in person with the classroom teacher to integrate and correlate the two programs. The reading teachers also meet with the psychologists to discuss how the youngsters are progressing in the program. Once a month, the entire staff meets in an evaluation program. Whenever the student is academically and psychologically prepared, he is returned to the corrective or to the developmental program. If the youngster is not meeting any success, he may be returned to the local school for further referral, study, and recommendations.

**Results**

The findings which pertain to the major purpose of the study are as follows: 1. At the close of the one-year instructional program and at the close of one year of follow-up, elementary pupils in the remedial group had made greater improvement in reading than had the pupils in the corrective and developmental program. The difference was statistically significant at the one-per cent level; 2. At the close of the one-year instructional program elementary pupils in the corrective group scored higher in reading achievement than did the elementary pupils in the developmental program, and the difference was statistically significant at the one-per cent level. There was no difference between the corrective and developmental groups at the end of the follow-up year; 3. At the close of the one-year instructional program, secondary-school pupils in the remedial group

1066.

had made greater improvement in reading than had the pupils in the corrective and developmental program. The difference was significant at the one-per cent level; and 4. At the close of the one-year instructional program, the secondary pupils in the corrective group scored higher than did the pupils in the developmental group, and the difference was statistically significant at the one-per cent level. There was no difference between the growth of the three groups at the end of the follow-up year.

Since the reading growth of the remedial pupils taking corrective remediation during the 1961-1962 school year was limited (elementary .5 and secondary .69), it was interesting to note that the average growth of corrective pupils receiving the same remediation during the same period was elementary 1.84 and secondary 2.02. It is apparent that the average corrective pupil receiving corrective remediation made a great deal more progress than did the average remedial pupil receiving corrective instruction.

## Summary

The intent of this paper is not to discuss the value of one particular pedagogical procedure over another but to stress the point that remedial readers when exposed to corrective procedures do not make really satisfactory permanent growth. These remedial pupils who have failed to progress under ordinary classroom methods must be taught not by repetition of techniques that have failed but by new ones carefully planned to overcome individual differences. It is not easy to identify these pupils. Standardized tests of achievement and capacity cannot be expected to yield accurate results for children with severe reading problems since a degree of verbal facility is necessary simply to understanding test-directions and to read the questions.

Most school systems introduce remedial-reading instruction at the third grade or later (if they have it at all). The justification may be one of economy. Of those children not reading at the end of first grade, perhaps half manage to pass muster by the end of the second grade; a few more of the remainder learn to read by standard instruction by the end of the third grade. These children are the "late bloomers," youngsters who, for unknown reasons, acquire late, but do acquire, the capacity to profit from conventional teaching. By waiting till the third grade, the school system has spared itself the cost of extra teaching for children who were going to make it on their own. This "economy," however, must be balanced against the cost to those children who, by the third grade, are deeply imprisoned in faulty learning habits, have become convinced of their ineptness, and now respond poorly to any but the most expert, individual, clinical instruction. An effective program for early identification and treatment might produce long-run savings if we take into account the cost of prolonged treatment and ultimate losses in the economic productivity of the handicapped readers.

Many Federal and state acts offer financial assistance. In Maryland's handicap laws the following statement is made:

a. The local department of education may provide a special program within the public-school system for any child whose specific learning disorder results in such impairment or dysfunction of the intellectual processes that he cannot benefit from the instructional program usually found appropriate for most children. Specific learning disorders include, for example, problems in reception, formulation, and expression of language; problems in visual perception and integration; and a specific reading disability such as strephosymbolia.

b. Wherever seven of these children who have similar learning disorders can be found, a special class may be formed and a qualified teacher may be employed.

1067.

TABLE I

SUMMARY OF DATA FOR 240 CLINICALLY RETARDED READERS

| Variable | Average | Comments |
|---|---|---|
| Sex | Male | 5 females |
| No. of male siblings | 1.1 | |
| No. of female siblings | 1.0 | |
| Place in family | 2.3 | |
| Age entering 1st grade | 5-11 | |
| Readiness score | 37 | poor—delay 6-10 months |
| Grade—1961 | 6.1 | |
| Instructional Reading Level: | | |
| Informal tests | 1.6 | |
| Standardized test: | | |
| Stanford | 3.8 | |
| WRRA | 3.2 | |
| WRSA | 2.5 | |
| WRAA | 4.2 | |
| Capacity Evaluation: | | |
| CTMM—2nd grade | 90.44 | |
| CTMM—4th grade | 89.58 | |
| WISC—Full Scale | 96 | |
| Verbal | 91 | |
| Performance | 101 | |
| Sub-Tests: | | |
| I 8.4 | PC 10.9 | DS 7.3 |
| C 9.3 | PA 10.7 | |
| A 8.3 | BD 9.9 | |
| S 9.2 | OA 10.8 | |
| V 9.1 | Cod 8.7 | |
| No. of grades repeated | .78 | |
| Attendance rating | 1.5 | 3 point scale: good /1, satisfactory /2, poor /3 |
| Health rating | 1.3 | |
| Discipline rating | 1.4 | |

TABLE II

DATA SHOWING AUTHOR, YEAR OF PUBLICATION, NUMBER, AND PER CENT OF BOYS AND GIRLS REPORTED AS REMEDIAL-READING CASES

| | Year Published | Number of Cases | | Per Cent | |
|---|---|---|---|---|---|
| | | Boys | Girls | Boys | Girls |
| Blanchard | 1936 | 63 | 10 | 86 | 14 |
| Young | 1938 | 37 | 4 | 90 | 10 |
| Preston | 1940 | 72 | 28 | 72 | 28 |
| Missildine | 1946 | 25 | 5 | 83 | 17 |
| McCollum | 1947 | 31 | 9 | 76 | 24 |
| Shapiro | 1947 | 28 | 9 | 76 | 24 |
| Axline | 1952 | 178 | 47 | 80 | 20 |
| Vorhras | 1955 | 23 | 11 | 67 | 33 |
| Johnson | 1959 | 163 | 39 | 81 | 19 |
| Fry | | | | | |

Heilman, Arthur W. *Principles and Practices of Teaching Reading.* Columbus, Ohio: Charles E. Merrill, Inc., Chicago, 1961, p. 356.

1068.

TABLE IIIa

DISTRIBUTION OF BOYS AND GIRLS IN HOMOGENEOUS CLASSES

| Grade | High Achieving | | Low Achieving | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| 1 | 198 | 273 | 233 | 123 |
| 2 | 231 | 300 | 243 | 135 |
| 3 | 213 | 294 | 240 | 114 |
| 4 | 213 | 291 | 315 | 105 |
| 5 | 198 | 309 | 213 | 102 |
| 6 | 231 | 321 | 222 | 144 |
| 7 | 339 | 498 | 516 | 374 |
| 8 | 318 | 384 | 409 | 252 |
| 9 | 216 | 498 | 336 | 225 |
| 10 | 180 | 288 | 225 | 72 |
| Total | 2337 | 3456 | 2952 | 1646 |

TABLE IIIb

PERCENTAGE DISTRIBUTION OF BOYS AND GIRLS

| Grade | Boys | Girls | Boys | Girls |
|---|---|---|---|---|
| 1 | 40 | 60 | 65 | 35 |
| 2 | 43 | 57 | 64 | 36 |
| 3 | 42 | 58 | 67 | 33 |
| 4 | 42 | 58 | 75 | 25 |
| 5 | 39 | 61 | 68 | 32 |
| 6 | 42 | 58 | 60 | 40 |
| 7 | 40 | 60 | 58 | 42 |
| 8 | 45 | 55 | 62 | 38 |
| 9 | 30 | 70 | 60 | 40 |
| 10 | 40 | 60 | 76 | 24 |
| Total | 40 | 60 | 64 | 36 |

TABLE IV

ONSET OF SKELETAL OSSIFICATION*

| Female | | | Male | |
|---|---|---|---|---|
| Yrs. | Mos. | | Yrs. | Mos. |
| 3 | 11 | Greater Multangular | 5 | 7 |
| 4 | 1 | Lesser Multangular | 5 | 9 |
| 4 | 3 | Navicular (Hand) | 5 | 6 |
| 5 | 9 | Distal Epiphysis of Ulna | 6 | 10 |
| 10 | 1 | Sesamoid—Adductor Pollicis | 12 | 8 |
| 3 | 2 | Metatarsal V-Distal Epiphysis | 4 | 7 |
| 5 | 0 | Calcaneus | 7 | 5 |

*Nelson, W. *Textbook of Pediatrics*. Philadelphia, Penna.: Saunders, 1959.

TABLE V

ANALYSIS OF THE THREE READING EVALUATIONS EMPLOYED IN THE STUDY

Mean Reading Grade Level Scores of the WRRA, Stanford, and Informal Tests According to the Three Treatment Groups

| | Elementary | | | Secondary | | |
|---|---|---|---|---|---|---|
| | Remed. | Correc. | Devel. | Remed. | Correc. | Devel. |
| WRRA | 3.20 | 2.97 | 3.32 | 4.89 | 5.07 | 5.15 |
| Stanford | 3.05 | 2.93 | 3.16 | 4.45 | 4.90 | 4.59 |
| Informal | 0.98 | 1.00 | 1.03 | 2.20 | 2.23 | 2.28 |

TABLE VI

ANALYSIS OF THE THREE CAPACITY TESTS EMPLOYED IN THE STUDY

Mean Scores for the Second Grade California Test of Mental Maturity, the Fourth Grade California Test of Mental Maturity, and the Wechsler Intelligence Scale for the Two Hundred and Forty Remedial Readers

| | Elementary | | | Secondary | | |
|---|---|---|---|---|---|---|
| | Remed. | Correc. | Devel. | Remed. | Correc. | Devel. |
| CTMM—Grade 2 | 85.60 | 78.35 | 88.98 | 95.28 | 81.15 | 93.58 |
| CTMM—Grade 4 | 88.80 | 91.30 | 86.60 | 90.38 | 81.75 | 91.58 |
| FS—Wechsler | 96.00 | 96.00 | 96.23 | 96.00 | 96.00 | 96.00 |
| VS—Wechsler | 96.56 | 94.25 | 91.45 | 93.40 | 93.40 | 91.03 |
| PS—Wechsler | 100.58 | 99.38 | 102.56 | 99.48 | 99.50 | 101.50 |

1069.

TABLE VII

INTERCORRELATIONS OF TESTS IN THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN

Wechsler's Standardization

| | I | C | A | S | V | DS | PC | PA | BD | OA | Cod |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Comprehension | .61 | | | | | | | | | | |
| Arithmetic | .59 | .46 | | | | | | | | | |
| Similarities | .67 | .61 | .50 | | | | | | | | |
| Vocabulary | .74 | .60 | .46 | .66 | | | | | | | |
| Digit Span | .39 | .28 | .40 | .34 | .38 | | | | | | |
| Picture Completion | .35 | .25 | .26 | .36 | .31 | .23 | | | | | |
| Picture Arrangement | .35 | .31 | .25 | .44 | .41 | .18 | .35 | | | | |
| Block Design | .48 | .33 | .35 | .45 | .42 | .29 | .51 | .42 | | | |
| Object Assembly | .29 | .13 | .20 | .31 | .33 | .13 | .55 | .42 | .63 | | |
| Coding | .38 | .32 | .34 | .33 | .37 | .24 | .23 | .35 | .35 | .38 | |

INTERCORRELATIONS OF TESTS IN THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN

240 Clinically Retarded Readers

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Comprehension | .37 | | | | | | | | | | |
| Arithmetic | .37 | .15 | | | | | | | | | |
| Similarities | .07 | .10 | .13 | | | | | | | | |
| Vocabulary | .59 | .47 | .12 | .03 | | | | | | | |
| Digit Span | .08 | —.05 | .18 | —.11 | —.12 | | | | | | |
| Picture Completion | .13 | .15 | —.16 | —.07 | .06 | .01 | | | | | |
| Picture Arrangement | .01 | —.05 | —.17 | —.03 | .04 | —.12 | .14 | | | | |
| Block Design | —.21 | .08 | —.18 | .13 | .07 | —.02 | .22 | —.11 | | | |
| Object Assembly | —.29 | .01 | —.21 | .02 | —.10 | .09 | .26 | —.12 | .58 | | |
| Coding | .01 | .11 | .10 | .11 | .17 | .05 | —.40 | —.04 | .10 | —.16 | |

1070.

341.

Vol.7, 62

# PART V

## Special Interest Institutes

### 1. Neurologic Correlates in the Reading Process ?

EDWARD H. SENZ, M.D.

RECENTLY, there has been a great surge of interest in the neurology of childhood. Regrettably, our understanding of learning and behavior as they relate to the nervous system is rudimentary. The human nervous system is inordinately complex, and its complexity is only beginning to be understood. Our measurements of brain function are crude and open to more than one interpretation. Arguments still rage as to whether higher intellectual processes are a function of the brain as a whole, or of specific parts of it.

In order for a child to learn, he must react appropriately to stimuli. He must recognize pertinent stimuli, reject competing stimuli, fix his attention on a pertinent stimuli, track and scan the pertinent stimuli, recall information stored in his nervous system, and then react adaptively. All this must take place in a few milliseconds. It is not remarkable that some children cannot do this efficiently; it is remarkable that most function as well as they do.

It is not difficult to find children with gross defects of the nervous system who have problems with learning. Of greater concern to educators, and increasingly to physicians, are children who have no gross or obvious neural defects, but who may have learning disability based on subtle neural imperfections. As you know, there is a frustratingly large number of school children who resist the educational process. It is becoming increasingly popular to diagnose such children as being "brain injured," "neurologically handicapped," or something similar.

Communication is difficult in this field, because the terminology is inexact and used inconsistently. The important question is: Are there a set of symptoms, patterns of disordered behavior, learning impairments, and failures of adaptation which are sufficiently characteristic in themselves and occurring in a normally intelligent child without obvious physical defects, which allow us to infer and predict, regularly and often, the presence of organic, non-psychogenic brain disease?

Information derived from studies of adults with brain disease is of little value, and actually may hinder us, when dealing with young children. There is no simple screening test which will identify the organically damaged child with accuracy. In most cases, diagnosis requires a variety of examinations and a detailed analysis of all available information by a group of specialists, preferably functioning as an organized team. A final diagnosis of brain disease is the responsibility of a physician, and cannot be delegated to others.

A proper diagnosis is a dynamic one, which explains the nature and genesis of a disability, and implies a prognosis and a treatment. Too many so-called diagnoses are merely a restatement, in technical jargon, of the presenting problem. I am skeptical of much of the current talk about the "brain damaged" child, because the theories and concepts involved disregard certain facts altogether, and fail to explain other facts. I want to discuss some of these discrepancies.

1) Boys are affected 10 or more times as often as girls by the problems under discussion. This is hard to reconcile with theories of brain disease. It is hard to postulate a sex-linked recessive characteristic, since in later life this sex ratio does not persist as it should if these boys had some sex-linked disease.

2) Proponents of "brain damage" theories often fail to take into consideration the tremendous variation in normal child development. Special functions of the nervous system mature at different



1071

rates in children of the same intellectual classification. We are accustomed to great variation in the appearance of special functions such as walking, talking, and bowel and bladder control. Why, then, are we often unwilling to recognize that not all children are ready to learn school subjects by 6, 7, or 8? May this not be simple developmental lag, with no pathological significance? May it not become pathological simply because of parental and school attitudes toward the slow-maturing child?

3) A substantial, and probably increasing, number of school children are at the lower end of the normal I.Q. scale for innate biological reasons—these are the so-called "dull normal." There would seem to be no need to embellish the matter of poor learning in these children with assertions of "specific learning defects" and "brain damage." I doubt the usefulness, for educational purposes, of distinguishing between the mentally retarded child who has had damage to a previously normal brain and the mentally retarded child who never had a normal brain.

4) Few long term studies of non-learning children are available. Those that are available do not seem to prove very much, because they are uncontrolled, and because the subjects were not adequately diagnosed in the beginning.

5) Many grossly brain damaged children do not have the learning and behavioral problems being attributed to "minimal brain damage."

It is very difficult, except in extreme circumstances, to correlate disease and disability. Usually, the amount of disability is determined more by the kind of person injured than by the injury itself. Identical body defects may render one person useless for life, while another person finds them merely an annoyance. This consideration brings me to my greatest objection to the "minimal brain damage" concepts.

6) Attempts to explain learning and behavior disability on the basis of "brain damage" alone revive some fictional dichotomies, such as heredity vs. environment and organic vs. psychogenic. A human being is the product of specific biological factors and specific environmental forces. Infinite variation is possible. Each factor or force sets limits within which the other operates, but neither determines by itself the final product, except in rare and extreme instances. Children, normal or abnormal, do not grow up in a vacuum. The final form of most children's disabilities is as much an expression of environment as of specific organic factors. Many examples could be cited. Even such a thing as cultural sex role can be shown to be determined more by environmental influences than by genes or hormones.

I have come to the conclusion that the diagnosis of "minimal brain damage" is more often an act of faith than an act of reason. It often results from a lack of study of the total life situation of the child. I feel that all of these considerations make it unlikely that many "reading problems" in otherwise normal children will be found to be due to specific organic factors alone.

Nature guards her secrets jealously, and no magic answers are available. We must continue to plod along, studying our case material, avoiding pretensions to knowledge that do not exist, attempting to communicate with each other, setting realistic goals for children, and encouraging experimentation.

Handicapped children often struggle for independence and engage in their own experiments to gain it. Many formal programs thwart these natural strivings of the children, without offering something that can be proved to be better. Many programs for handicapped children treat parents with inadequate interest and respect. A change of emphasis is in order.

I would like to close by quoting one of my educational heroes, Dr. Robert M. Hutchins, who attributes the quotation to William the Silent or Charles the Bold: "It is not necessary to hope in order to undertake, nor to succeed in order to persevere."

1072.

342.

Vol. 5, 1960

# Etiology of Reading Disability: The Neuro-Chemical Theory

DONALD E. P. SMITH

The term *etiology* means the study or demonstration of causes. It is generally assumed that natural phenomena, including reading disability, can be assigned causes. If a ten-year-old child is unable to read and we discover that he has never attended school, we conclude, subject to verification, that he is unable to read *because* of educational deprivation.

I suspect, however, that our current notions about causation have led us into a number of *cul-de-sacs*. Some of these, such as the "correlation equals causation" error, are well known. Others are less obvious and harder to correct. For example, controversies over single causation versus multiple causation (wherein the multiple causes are aspects of the single cause) are current in many disciplines. One of more ancient lineage in our own area is the controversy over anxiety: do anxiety states cause the reading problem or does the reading problem cause anxiety states?

In order to obviate needless controversy over the chemical or neurochemical theory of reading disability,[1] I would like to suggest an alternative way of thinking about reading success and failure and then

[1] D. E. P. Smith, and P. M. Carrigan. *The Nature of Reading Disability*. New York: Harcourt, Brace & Co., Inc., 1959.



to illustrate the potential of this way of thinking for research and practice.

## The Adaptation Concept

The first grade child is out-of-joint with the demands of a literate society. In order to bring himself into balance with it, he must learn to read. The task is highly complex, requiring a substantial modification of his existing cognitive and perceptual structure.

Children differ in the extent of their adaptability. Some continually succeed despite unusual demands, while others are capable of so little modification that failure becomes a constant in their lives. Fortunately, man is capable of adapting to his environment to some extent in order to compensate for certain of his own deficiencies. Thus, instruction (a special environmental adaptation) is provided to help the child achieve the required task. But there are limits to which the educational environment can be adapted to fit the child.

The relative contributions of individual and environment to the total adaptation required in order to reach a given level of achievement is reflected in Figure 1. Note that the child superior in adaptability will require very little environmental change or instruction and the remedial case will require the most. For example, a therapeutic atmosphere, step-by-step instruction, specially designated material, substantial extrinsic motivation, and the like, are required.

Clinicians have found that, at some point near the bottom of the figure, such an unusually large amount of modification is required that it is economically and practically unfeasible. At this point, something must be done to increase the adaptability of the child. This is the place where medication becomes appropriate.

## The Neuro-chemical Barrier

If we were now to describe adaptability in chemical terms, we would avoid many of the problems arising from differences in viewpoint concerning causality. The superior reader has been described elsewhere[2] as overproducing both acetylcholine, a circuit-maker in neural transmission, and cholinesterase, a circuit-breaker. It is predicted that a *balance* of the two

1073.

chemicals at a high level of secretion will be found in rapidly maturing children and produces, according to the theoretical model, maximum adaptability (other things equal). A low level of both will be found in children delayed in maturation and produces minimum adaptabiity. Aberrations in either chemical singly are consonant with specific syndromes of reading disability. On the other hand, over-production of one with concomitant under-production of the other should result in behaviors characteristic of psychotics, as described elsewhere[3] and at length by Patricia Carrigan.

Our previous ways of thinking about causality have limited our therapeutic procedures largely to modification of the environment. Factors such as parental demands, inadequate ego controls (as in "brain damage"), deficient memory, inattention to details, and the like, have been treated by psychotherapy, a structured environment and special teaching techniques. When such procedures have failed, we have had recourse to no others. We have looked in vain for more "causes" amendable to environmental treatment. We have, in short, come up against a neuro-chemical barrier. The new theory, by crossing over the barrier, allows new possibilities for attacking these problems. For example, a perceptual error, such as the omission of endings, may be explained at several levels of discourse, each level having its own treatment:

| | Explanation | Treatment |
|---|---|---|
| Level 1 | "Carelessness" | Admonition: "Be careful." |
| Level 2 | Low perceptual accuracy | Modify material by increasing size of print and distance between words |
| Level 3 | Excessive cholinesterase relative to available acetylcholine | Medication to block ChE or to increase ACh. |

Implicit in the idea of levels of explanation is an assumption: the same physiological processes operate at each explanatory level. One moves to a more molecular level of discourse only when required by the severity of the problem, *i.e.*, the lack of adaptability of the learner.

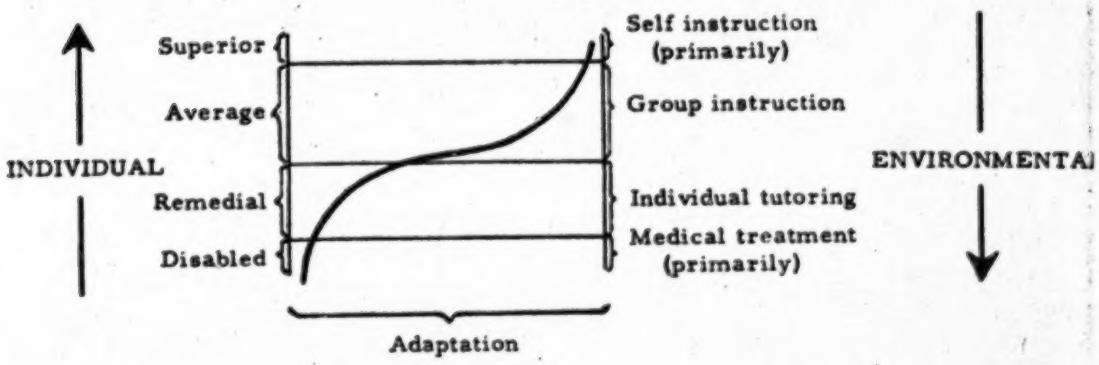
To summarize, an understanding of severe reading problems has been limited by an environmental concept of causality. Another viewpoint consisting of "levels of explanation" derives from the concept of adaptability, extent of which in a given individual is assumed to be biologically determined. Instead of depending solely upon adaptation of the environment as a treatment measure, we now see the learner as a source of adaptation.

## Evolution of a Concept: The Explosive Child

To lend substance to the foregoing, I would like to describe the development of an idea, what I think is a special syn-

[3] *Ibid.*
[3] P. M. Carrigan, "Broader Implications of a Chemical Theory of Reading Disability." Paper read at meetings of the American Psychological Assn., Cincinnati, 1959.

**FIGURE I**




**Relative contribution of individual and environmental adaptation required to reach given level of achievement in reading for several types of learners.**

1074.

drome, the "Explosive Child." During the course of our experimental work over a three year period, I met twice weekly for tutoring sessions with an adult non-reader, formerly an explosive delinquent, whom I will call Bob. Among many symptoms was one for which I could find no adequate explanation. It consisted of a halting pattern of oral reading. There was a defective speech component, but that alone did not account for the phenomenon. At one point, he read, "Josephus habitually *felt* the, no, *left* the tent."[4] This simple reversal was fortuitous. The following day, I examined an adolescent boy who made a number of such errors. In addition, he complained of, among other symptoms, brief memory for words, inflamed eyelids, chronic muscular aches and compulsive drinking of milk. He had a history of school vandalism.

Some of his perceptual errors were of this sort:

| | |
|---|---|
| . . ."I will not give . . . | Read, "I want |
| . . . me some milk." | some milk" |

A reasonable explanation of his error seems to be as follows: While fixating on the target *I,* he saw the ascenders *ll* in *will* and the *n* and *t* of *not* in his periphery. At that moment, a relatively uncontrolled eye movement occurred placing him on the next line. The context of *some milk* then led him to construct the word *want* to fill the verb gap. Again:

| | |
|---|---|
| . . . or garden. | Read, "or grand." |
| . . . boy and girl . . . | |

*Grand* may be composed of the target *g,* and peripheral sensitivity to an ascender, *l,* and a terminal letter, *n.* An uncontrolled eye movement, the end-point of which is partly determined by the previewing of *d* and *n,* leads to a fixation on *nd,* and he thus constructs *grand.* The reader is, of course, unaware of these events. The uncontrolled eye movement which is posited is carried out without awareness, *i.e.,* he did not intend it. One further example:

| | |
|---|---|
| . . . from a nest long . . . | |
| | Read, "from a near" |
| . . . had been reared . . . | |

[4]This and the following illustrations are taken from the *Gray Oral Reading Paragraphs Test,* Bloomington, Illinois: Public School Publishing Co., 1955.

It occurred to me that this series of events could take place if there were an exaggerated nystagmoid movement, akin to a muscular spasm. Since muscular spasms occur under a condition of calcium deficiency, the symptoms of inflamed eyelids, muscular aches, explosiveness and milk intake made sense with the addition of one assumption: this boy may be unable to absorb calcium.

There followed a check of Bob's milk intake, "five quarts a day when I can get it," and a check on the medical histories of seven boys whom we had failed to help. Six of the seven showed similar symptom patterns. Next came a polling of expert opinion and a search of the literature for a chemical test by which to evaluate the idea. In the meantime, it seemed necessary also to test the validity of our explanation of the eye movement phenomena. That is being assessed currently by use of simultaneous electrical and film recording of eye movements and of oral reading performance with specially constructed paragraphs. The importance of this evidence stems from the long search for an explanation of reversals, substitutions and additions.

A medical test which measures calcium absorption indirectly was finally determined. This is a serum test of alkaline phosphatase. The first three clients tested yielded scores placing them in the lowest 3 percent of the general population. Results like this are sufficiently promising to warrant further study.

The identification of this syndrome was facilitated at certain stages by the chemical model and by the concept of levels of explanation. First, the subjects involved are all representative of a major syndrome, Group V in the model. Thus, we are dealing with a relatively homogeneous population. However, these subjects differ in systematic ways from other members of that group. For example, while they are polite and well mannered, they erupt from time to time. Furthermore, Group V subjects typically demonstrate excellent memory for words while this group cannot remember spelling words from day to day. The second contribution to the development of the concept was made by thinking of reading errors as a perceptual



manifestation of a physiological event. Thus, the neuro-chemical barrier was passed. Investigation could continue "inside the skin" with the promise of results potentially applicable to many learning and behavior disorders.

1075.

343.

## b. Classroom Reading and the Visually Handicapped Child

93.

GEORGE D. SPACHE

In keeping with the general theme of this conference, "Changing Concepts in Reading Instruction," it is appropriate to approach our topic in a chronological



manner. Thus it may be possible to show some of the changes that have occurred in recent years in our thinking about reading and the visually handicapped child.

### An Ophthalmological Approach

Special provisions for visually handicapped children were available in many school systems as early as 1925. These usually took the form of sight-saving or sight conservation classes composed of children of subnormal acuity, partially blind, or extremely myopic. These children were supplied with special writing instruments, special paper, books printed in oversize type, better than usual lighting conditions, and a program which avoided extended near-point work.

For their specific purposes, the sight-saving classes were, and still are, quite appropriate. However, the selection of visually handicapped children for these classes has always been based upon an extremely narrow concept of the vision process. The major criteria for the selection of these pupils have been that they exhibit (1) a visual acuity between 20/70 and 20/200 in the better eye; (2) serious, progressive eye difficulties, or (3) diseases of the eye or body that seriously affect vision.[1] It is apparent that these selective procedures consider only one aspect of vision, visual acuity or clearness of sight. The effort to conserve the vision of chil- procedures consider only one aspect of laudable. But it thereby excludes all other visually handicapped children whose reading progress might be impaired by their condition.

The reason for the restricted function of sight-saving classes has been the use of an opthalmological or medical concept of vision. Visual examinations in medical hands often stress only the anatomical, pathological, and refractive aspects of vision. The visual functions commonly emphasized include near-sightedness, far-sightedness and astigmatism. Frequently visual functions such as binocular coordination, fusion, depth perception, near-point acuity, and slight vertical or lateral imbalances are ignored despite the obvious symptoms they produce. Thus many children, who like the partially seeing are handicapped in school work, are never identified and certainly not admitted to the so-called sight-saving classes.

The medical domination of school vision screening procedures is present in many areas, and particularly my own state of Florida. County and state public health officials insist upon the use of the completely inadequate Snellen vision test because it fits the medical concept of the vision process. Yet the studies of this test conducted under medical sponsorship, show that it misses one out of four children found visually handicapped, even by ophthalmological standards.[2] In comparison, other vision screening tests included in this same study missed only 6-8 per cent of the pupils judged in need of visual care. Thus by stressing only the anatomical and refractive aspects of vision, and ignoring the functional concept, detection and care of all visually handicapped children is quite inadequate in many states.

### A Developmental Approach

In recent years there have been suggested several other possible approaches to the problem of finding those pupils whose physical adjustments to the classroom may result in reading or other types of academic failure. For lack of a better descriptive term, I am calling this the developmental approach. The emphasis in these studies is upon the careful observation of the development of defects in posture, and perceptual motor skills such as bimanual balance, ocular pursuits, directionality and visual perception. This approach does not stress tests of vision *per se*. Thus it avoids the conflict of interest between ophthalmological and optometric authorities who are vying for the task of testing children's vision. This approach also offers a solution to the arguments about the merits of various vision tests. Instead of imitating inadequately the professional examinations recommended by various groups, the developmental approach offers not clinical tests of vision but educationally prognostic tests of significance to reading teachers.

[1] Winifred Hathaway, *Education and Health of the Partially Seeing Child*. New York: Columbia University Press, 1950.

[2] Mariam M. Crane, et al. *Screening School Children for Visual Defects*. Children's Bureau Publication, No. 345, 1954. Washington, D. C.: United States Department of Health, Education and Welfare.

1076.

The relation of physical adjustments to the classroom to school difficulties was first studied intensively by Darell Boyd Harmon. His study of the classroom[3] included measures of the effects of lighting, seating arrangements, decoration, and brightness contrasts upon health and academic achievement. He showed significant reductions in the incidence of visual, nutritional, and postural problems, in chronic infection and fatigue, and marked increases in academic achievement in the experimental classrooms. These academic achievement results were not found in a replication experiment involving a single class.[4] But differences in latitude may have been the explanation, and the second experiment did not attempt to measure the changes in health, nutrition or vision, which may have been significant.

Whether changes in the physical environment, as suggested by Harmon, always produce dramatic increases in achievement cannot be settled here. There are, however, a number of other facts in this study of significance for the teacher who is concerned about providing proper working conditions for her pupils. Strong contrasts in reflection should be avoided both on the walls of the room and the child's working surface. Maximum limits of contrast in the child's visual field should be 1 to 3. This implies that working surfaces should be light-colored or natural wood finish, walls should be decorated with muted or grayed colors, and chalkboards should be in the range of yellow-green. The child's working surface for reading, writing and drawing should be 20° off the horizontal to insure proper balance of the child's body and to avoid energy-consuming stresses. The child's working surface should be rotated so that the greatest source of light, as the windows, falls outside the child's binocular field. In other words, all windows should be outside his visual field which extends about 50° to each side of his line of sight. The working distance from the eyes to the point of fixation in near-point work should be equal to the distance from the center of the middle knuckle to the elbow measured on the outside of the arm. Thus the child's chair and desk must be adjustable if these arrangements are to be made individually for each child.

Most of us are familiar in a general sense with these criteria for decoration, lighting, seating, etc. We accept them in principle, but ignore them in practice because we are unaware of their true significance. We fail to realize that violation of these principles produces faulty or unnatural postural adjustments which induce functional visual problems that eventually manifest themselves in actual visual defects.

Let me dramatize some of these faulty adjustments which tend to produce our visually handicapped children and our reading failures. Gertrude Knox has made a careful study of the significant symptoms of visual difficulties that may be observed by the teacher.[5] We will illustrate these symptoms by a series of slides made by Lois B. Bing of Shaker Heights, Ohio.

One of the commonest symptoms of children who are approaching myopia or difficulty with far-point vision is the tendency to facial contortions and forward thrusting of the head. Slide 22 shows a child in this posture who is vainly attempting to secure better vision by squinting with both eyes. In Slide 7, the child not only thrusts his head forward but turns it so as to favor one eye, thus tending to lose fusion at far-point. Slide 2 shows the difficulty of maintaining true binocular vision on a flat working surface. Most children are pushed toward this imbalance by an effort to avoid the strong contrasts or the glare in their visual fields. The next three slides (33, 11, and 19) demonstrate the tilting of the head that Knox lists as a significant visual symptom. In these examples, the children are tending to lose binocular coordination, to force one eye toward a permanent lateral or vertical imbalance, and to suppress vision in that eye. Practically all of the research on vision and reading indicates that these particular visual difficulties seriously affect reading success. These variations which

[3]Darell Boyd Harmon, *The Co-ordinated Classroom*. Grand Rapids, Michigan: American Seating Co., 1950.

[4]Charles B. Huelsman, Jr., "Educational Changes in an Experimental Classroom," in "Clinical Studies in Reading II," *Supplementary Educational Monographs* 77, pp. 149-155. Chicago: University of Chicago Press, 1955.

[5]Gertrude Knox, *Classroom Symptoms of Visual Difficulty*. Master's thesis, University of Chicago, 1951.

1077.

ophthalmological testing tends to demonstrate occur in significantly greater numbers in most studies of the vision of poor readers. The next slide (15) shows a child who, without tilting of the head, is exhibiting a well-developed tendency to suppress vision in one eye in the act of reading.

Tension during close work exhibits itself in a number of ways. Here we see it in the strained expression of the face (Slide 25). Some children show tension by having to reinforce their vision by whispering the words (Slide 32) or by using their finger or a marker (Slide 30).

These faulty physical adjustments to the work of the classroom manifest themselves in a way which is of particular significance to the reading teacher, namely visual perception. These children show distorted perception of objects in space, of depth, distance and directionality, and form or word-like shapes. These are the children whose poor perceptual-motor skills interfere with their success in such areas as reading and spelling.

Since many of these perceptual difficulties begin to appear even before school entrance, it seems wise to attempt their detection at this time. Tests of perceptual skills, such as those identified by Goins,[6] seem to indicate that there are at least two types of perceivers at first grade level. One type can hold or recognize a total configuration or achieve closure; another type can also discriminate parts of the whole. Children who later become successful readers are skilled in both these types of perception. Other diagnostic tests of perception are offered by Getman[7] and Harmon.[8] These include not only measures of form perception, but also tests of motor coordination, bimanual balance and space organization, and ocular control. These latter tests evaluate somewhat more primitive or basic skills and coordinations than the form perception tests. Perhaps, for this reason, they are not as closely related to the specific act of reading as some of Goins' tests[9] nor are they highly related to clinical tests of vision. But these are not the basic purposes of these perceptual-motor tests. They are intended to point out those children who need help in achieving better perception of objects in space, of ocular control, of balance and directionality and to predict probable future difficulties in physical adjustment to classroom demands. The best use of these perceptual-motor tests is probably in conjunction with those of higher level form perception.

### Vision and the Machine Approach

Various types of machines for promoting reading rate have achieved wide use in recent years in schools and reading clinics. The indiscriminate use of these machines introduces a number of visual problems. Most of these problems could be avoided by visual screening tests of the groups being trained by machines, but this precaution is not common.

The first problem is that of inducing retinal shock or fatigue because of the strong contrast between the light flashing on and off on the screen and the rest of the room. Newer types of screens which eliminate the need for darkening the room will minimize this danger. A second point, commonly ignored, is that most group training by machines is conducted at far-point. This practice is quite appropriate for younger children who may be normally farsighted. But for the 20-30 per cent of older pupils who are myopic or have limited far-point acuity this type of training is not desirable. The same conditions are true for persons with faulty fusion or coordination or any other major visual problem at far-point. Such individuals are being forced to attempt to improve their rate under conditions which may not even permit clear vision.

Two other visual phenomena strongly affect the outcomes of far-point machine training and the transfer of this training to book reading. Most tachistoscopic training permits an after-image which

[6]Jean T. Goins, *Visual Perceptual Abilities and Early Reading Progress.* Supplementary Educational Monographs, 87. Chicago: University of Chicago Press, 1958.

[7]G. N. Getman, *How to Develop Your Child's Intelligence.* The Author: Luverne, Minnesota, 1908.

[8]Darell Boyd Harmon, *Teachers' Manual—Perceptual Training Experiment.* Winter Haven, Florida: Winter Haven Lions Research Foundation, 1960.

[9]Helen M. Robinson, Lucille Mozzi, Mildred Letton Wittick and Alfred A. Rosenbloom, "Children's Perceptual Achievement Forms: A Three Year Study," *American Journal of Optometry and Archives of American Academy of Optometry,* 37 (May 1960), 223-237.

1078.

aids the recall of the reader. Thus he may recall more than he was actually able to read during the tachistoscopic exposure, giving a false impression of his progress. To our knowledge, only one device, the *Tach-X* of the Educational Developmental Laboratories attempts to control the after-image by projecting a blurred image on the screen before and after the tachistoscopic exposure.

The other element in far-point training that militates against transfer is the difference in the field of vision at near and far-point. The greater area available at far-point makes possible the reading of a span of 20-25 letters or 4-5 words. At near-point, this span is reduced by the marked convergence to approximately one five-letter word per fixation, at the college level. These are the standards of fixation span for senior high school and college level readers reading at a rate from 240 to 280 words per minute, according to the new *Reading Eye* eye-movement camera. The effects of after-image and the wide field of vision at far-point may be part of the explanation of the great difficulty in transferring the reading rates achieved in tachistoscopic practice to the act of book reading. Moreover, the indiscriminate use of far-point machine training with individuals who are visually handicapped at this distance also militates against its effectiveness.

## 5. Clinical Programs

### a. The Diagnosis and Treatment of Symbolic Confusion

CHARLES L. SHEDD

Research in perceptual difficulties has centered largely along four main lines: medical research, educational psychological research, academic psychological research and psychoanalytically oriented investigation. Within each of these broad areas problems have become specialized so that information from other areas has been ignored and findings within an area itself unassimilated. Nowhere is this condition more apparent than when the perceptual difficulties are expressed as reading problems. The consequence of this specialization has produced a sterility in conceptualization and investigation so that reading difficulties continue unchecked. While estimates vary to the extent of reading difficulties it may be conservatively estimated that 15 per cent of the school population with normal or above intelligence are reading so poorly that their total adjustment is impaired.

An individual approaching the field of reading retardation will find a wide variety of etiologies from which to choose. Confronted with a multitude of etiological possibilities, it is not surprising to find a growing number of practitioners who propose that we view reading problems as symptoms which may be treated independently of etiology. It must be recognized that this is an attempt to bring order to a chaotic field and may, in a limited sense, produce practical results, but the consequences are far reaching. Rabinovitch (7) points out: "Failure to attempt accurate diagnosis with all labeled indiscriminately as reading problems has led to many divergences in reports in literature, and more important, has probably afforded many children inappropriate treatment." Of perhaps even greater consequence, such procedures have halted the empirical investigation of reading difficulties and placed the emphasis upon the treatment phase. Such a shift is not in itself a difficulty, finding a parallel in medical practice where pharmaceuticals are frequently administered without clear knowledge of what occurs at a physiological level. What is of consequence is the fruitlessness of remedial procedures in reducing the number of poor readers. In other words, over thirty years of symptom oriented remedial work has not justified itself at a pragmatic level. With all the supposed remediation and understanding we do about as well without it as with it. The judgment is inevitable that we still do not understand the process of reading nor the nature and cause of disabilities. We cannot, then, afford to rule out, without adequate information, those concepts and ideas which could contribute to such understanding. Nor can we afford ourselves the luxury of applying psychological data in the interest of some model or some single sovereign principle,

1079

1. 10, 65 300.

# 8. The Role of Laterality in ~~Reading Disability~~

KAREN J. TINKER
Culver City, California High School

344,

THE PURPOSE of this study was to determine if there is a correlation between scores on tests of laterality and scores on a test of reversals. Specifically, it was hypothesized that among disabled readers' scores on laterality tests would correlate negatively with the total number of errors made on reversal tests. It was also hypothesized that no such correlations would be found among the scores of children making normal progress in reading.

## Procedure

### Subjects

The study began with 591 students who constituted the total enrollment of grades two, four, and six in two elementary schools. In this group 67 disabled readers were identified. Each disabled reader was matched with a normal reader of the same sex, grade and IQ. Of these subjects, 14 pairs were second-graders, 23 were fourth-graders, and 30 were sixth-graders.

### Selecting Disabled Readers

A student was classed as having reading disability when his reading achievement score was significantly lower than his mental age score. The *Gates Primary Reading Test* (second grade) and the *Gates Reading Survey* (fourth and sixth grades) were used to determine grade level placement of reading ability while the *Ammons Full Range Picture Vocabulary Test,* an individual, non-reading, intelligence test, provided a mental age score. The mental age score was compared with the reading achievement age. A second grader was designated a disability case if his reading achievement age was six months below his mental age score. In fourth and sixth grades the student's achievement age had to be at least a year below his mental age.[1] A list of disabled readers was compiled and those cases were removed whose reading disability the school authorities already had attributed to a reasonable cause, for example, a physical handicap such as a displaced retina.



### Matching Pairs

Each disabled reader was matched with a normal reader of the same sex, the same mental age, and approximately the same chronological age. The IQ of a normal reader had to be within five points of the IQ of the disabled reader with whom he was matched. The child was considered a normal reader only if he was reading at or above his mental age level. Table I shows the general characteristics of the resulting sample of 67 pairs. A *t* test showed that there is no significant difference in IQ between the groups.

TABLE I
SAMPLE CHARACTERISTICS

| Characteristics | Disabled Readers | | | Normal Readers | | |
|---|---|---|---|---|---|---|
| | 2nd | 4th | 6th | 2nd | 4th | 6th |
| Number of Boys | 11 | 21 | 22 | 11 | 21 | 22 |
| Number of Girls | 5 | 6 | 12 | 5 | 6 | 12 |
| I.Q. (mean) | 125.8 | 131.2 | 127.0 | 125.6 | 131.3 | 127.2 |
| Reading Achievement (mean grade level) | 2.2 | 4.0 | 6.1 | 3.3 | 7.0 | 8.5 |

### Measurement of Laterality

There were three tests of laterality, one measuring eye laterality, one measuring hand laterality, and one measuring foot laterality. The tasks described by Delacato[2] combined with those of the *Harris Laterality Tests*[3] were used. There were 15 tasks for the hand, six for the foot and 10 for the eye. Hand and foot tests included simple tasks such as using a pair of scissors, dealing cards, kicking a ball, or stepping up onto a chair. Eye tests included tests for the sighting eye and the *Keystone Visual Survey Tests,* numbers 4½, 5, 6, 12, 13, 14 on the telebinocular.

For hand and foot tests a score of one was given for every right side response and zero for each left side response. All eye tests were assigned a *zero* for left, a *one* for both sides equal, and a *two* for right. This was done because the telebinocular tests could provide equal scores for left and right responses. It was felt that if only the telebinocular tests were scored this way, they would be unequally weighted with the other eye tests.

Raw scores on each test were converted to laterality scores by assigning a value of one (indicating low laterality) to the score located in the middle of the scale and numbering outward in both directions from this midpoint. Hence a high laterality score could mean either that the child almost always used his left side or almost always used the right side. The total laterality score was derived by converting the hand, eye, and foot laterality scores to standard scores and averaging these standard scores.

### Measuring Reversal Tendency

The "Recognition of Reversible Words in Context" section of the Bond-Clymer-

[1]Guy L. Bond and Miles A. Tinker. *Reading Difficulties: Their Diagnosis and Correction.* New York: Appleton-Century-Crofts, Inc., 1957, pp. 150-157.
[2]Carl H. Delacato. *The Diagnosis and Treatment of Speech and Reading Problems.* Springfield, Ill.: Charles C. Thomas, 1963, pp. 93-101.
[3]Albert J. Harris. *How to Increase Reading Ability,* 3rd ed. New York: Longmans, Green and Co., 1956, pp. 258-260.

1080

Hoyt Reading Test[4] and an additional group test for reversals, devised by the author, were administered to both groups. In the experimenter's test the student was given all directions by a taped recording. In the first portion of the test the word that the child was to find and cross out in each item was listed with four other words which differed only in the sequence of the letters. For example, he was told to locate and cross out the word *dog* from among the words *bog, bop, god, dod* and *dog*. There were 15 such items. In the second portion of the test there were 35 sentence items. The child was to find and cross out a word in a sentence where the word and at least one reversed form of the word appeared. For example, he was to cross out the word *bad* in the sentence: "His dad said that it was bad to dab paint on the pad." Scores for the reversal tests were the number of errors made.

## Analysis and Results

The degree of correlation between scores on the laterality tests and scores on the reversal tests were determined, using the Pearson's product-moment correlation. Scores for the disabled readers were analyzed separately from those of the normal readers. Correlations were also computed between the various measures of laterality. Table II presents the results of the analysis.

TABLE II
CORRELATION OF LATERALITY AND REVERSAL ERRORS
DISABLED READERS

| | Reversals Mean | Reversals S | Bond Test | Hand | Foot | Eye | Total Laterality |
|---|---|---|---|---|---|---|---|
| Reversals | 5.54 | 9.21 | .81* | —.18 | —.08 | .19 | —.04 |
| Bond Test | 5.78 | 5.89 | | —.12 | —.26** | .16 | —.05 |
| Hand | 6.54 | 1.08 | | | .08 | .14 | .97* |
| Foot | 2.60 | .94 | | | | —.20 | .52* |
| Eye | 7.82 | 2.75 | | | | | .55* |
| Total Laterality | .02 | 1.74 | | | | | |

NORMAL READERS

| | Reversals Mean | Reversals S | Bond Test | Hand | Foot | Eye | Total Laterality |
|---|---|---|---|---|---|---|---|
| Reversals | 1.99 | 3.74 | .63* | .13 | —.04 | .12 | .15 |
| Bond Test | 2.67 | 3.83 | | .02 | —.09 | —.11 | —.10 |
| Hand | 6.30 | 1.68 | | | .08 | .15 | .62* |
| Foot | 2.73 | .86 | | | | .03 | .59* |
| Eye | 6.79 | 2.97 | | | | | .63* |
| Total Laterality | .001 | 1.87 | | | | | |

* Significant at .01 level.
** Significant at .05 level.

In the correlations for disabled readers, shown in the upper part of the table, the author's test for reversals correlates .81 with the Bond reversal test. Note that the only significant negative correlation (.05 level) between the laterality scores and the reversal tests is between foot laterality and the Bond test. The significant correlations between total laterality and individual laterality scores are of minor importance since the individual scores are included in the total score.

Comparable data for normal readers are given in the bottom part of the table. Again there is a significant correlation between the writer's test and the Bond test. The correlations between the reversal tests and the laterality tests are all significant. As for the disabled readers, the total laterality scores reveal significant correlations with individual laterality tests.

The trends of the correlations for both disabled readers and normal readers are similar with the single exception of foot laterality and the Bond reversal test for disabled readers. Note that this correla-

[4]Guy L. Bond, Theodore Clymer, and Cyril J. Hoyt. *The Developmental Reading Tests.* Chicago: Lyons and Carnahan, 1955. Reproduced and used with permission of the publisher.

tion of —.26 is barely significant at the .05 level. In general, it appears that these relationships are similar for both disabled and normal readers. The whole trend of the data suggests, therefore, that laterality is an unimportant factor in reading disability.

## Conclusions

1. The first hypothesis—which states that among disabled readers, scores on laterality tests would correlate negatively with the total number of errors made on reversal tests—is not confirmed.

2. The second hypothesis is confirmed. It states that children making normal progress in reading will show no significant correlation between reversal errors and laterality.

3. It appears that the data in this study does not support the view that laterality is a factor in reading disability.

11 Frank had been expecting a let-
ter from his brother for several days;
so as soon as he found it on the kitch-
table he ate it as quickly as possible.

11 Frank had been expecting a let-
ter from his brother for several days;
so as soon as he found it on the kitchen
table he ate it as quickly as possible.

Fig. 1. The upper half of a printed line provides more clues to word perception than the lower half. Adapted from D. G. Paterson and M. A. Tinker, *How to Make Type Readable.* New York: Harper and Row, 1940, by permission of the authors.

1082

345.

## 2. Eliminating the Practice of Using Non-Trained Personnel for Remedial Instruction

296. JOSEPHINE B. WOLFE
University of Scranton

THE PRACTICE OF using non-trained personnel for remedial instruction is a pressing concern nationwide to any person desirous of improving reading instruction. Anxieties are high! Fears are many! Such feelings are understandable when one "takes stock" of how frequently one hears, "What is meant by remedial reading? What kinds of experiences, training, and competencies are expected of remedial reading instructors?" Even though descriptive replies continue to be offered by "the experts," their verbage is not a satisfying influence on the general school populace. Thus, confusion prevails and perplexities continue to grow.

### Prevailing Confusion

Because of the prevailing confusion, the writer felt it prudent to review the literature and obtain the views of a number of successful practitioners prior to discussing any phase of remediation, especially the phase of *eliminating the use of the many non-trained personnel who are posing as remedial instructors.*



Of course, it was not surprising to find wide variations expressed in the literature as well as among the thinking of the practitioners. To the query, "What is meant by remedial reading?" one finds any of the following thoughts: designing a kind of teaching program within a school to "remedy" a reading defect; providing individual instruction for children within a school situation; teaching individually or in small groups children below their age or grade norm in reading within a classroom situation or within a school situation; planning a teaching program based on some special or unusual device; providing children with special clinical service; and so on! As to be expected, the same kind of "muddled" thinking equally prevails when researching the question, "What kinds of experiences, training, and competencies are expected of remedial-reading instructors?" Yet, let me hasten to report that when one analyzes the area of remedial-reading instruction, one discovers rather quickly that remediation in this area involves no feature that is not included in good "developmental" classroom reading under the guidance of well prepared and efficient classroom teachers. But, to be quite frank, since the situation is a mass of misunderstandings and uncertainty, it is apparent that some degree of remedying the general confusion is in order.

### Remedying the Confusion

The time is certainly ripe for some group or organization, whether it be at the local, state, national, and/or international level, to remedy the existing state of confusion as to the clarification of the term "remedial reading" and as to the qualifications of the remedial-reading instructor. Although these terms served a practical purpose forty years ago, they certainly are misleading in 1966. But, regardless of the terminology used, it would appear to be good strategy to draw up a list of titles of the sundry specialized services we find in the field of reading. With the list drafted, the following procedural steps appear to be appropriate:

1. define the function of each reading specialist;
2. list the qualifications to be met by each reading specialist;
3. outline a program of training that is needed to achieve "expertness" in each area of specialization;
4. suggest standards for certifying each particular reading specialist; and
5. plan a program of orientation with school administrative officers to implement the professional program that has been developed, remembering that the professional designers are not usually the professional employers.

Will the implementation of the professional program described above eliminate the "quackery" existing in the reading profession? Of course, it won't! Although such a program may help, horizons must be extended.

### Eliminating the Non-Trained

*Basic Warnings Must be Heeded*

If we, as students of reading, plan a conscientious effort to eliminate the "non-trained," then there are certain warnings that must be heeded—heeded by those who wish to identify themselves as remedial-reading instructors and those who are seeking the services of such specialists. A list of some of the "warnings" will be suggested:

1. All schools should avail their staff with the services of a person who is thoroughly prepared to help all school personnel solve most of the reading difficulties found in the typical school of today. Whether the person is labeled "remedial-reading instructor" makes little difference. It is the job he does that really counts!
2. The major aim of a remedial-reading instructor should be to plan a program of prevention rather than a program of correction. To fulfill this aim, in-service training is needed which will increase the knowledge, insights, and skills of classroom teachers in dealing with all types of readers.
3. The remedial-reading instructor should be interested and well informed in all fields of the curriculum and teaching. Too frequently the term "remedial reading" has been "oversold" as the *come all/cure all treatment* when a minor revision of the curriculum and/

1083

or teaching procedures would solve many of the so-called "remedial reading problems." In other words, the effective remedial-reading instructor should play a major role in studying, planning, implementing, and revising the curriculum.

4. The remedial-reading instructor should possess a high level of insight and skill in diagnosing and teaching *all types* of readers. Too often it is the able readers who are the most neglected.
5. The remedial-reading instructor should be able to help many types of milder "clinical" cases and be able to recognize the need for further clinical help of the few boys and girls who require treatment of a more specialized nature.
6. The remedial-reading instructor should be alert and ready to challenge the fanatics, faddists, and popular columnists who are invading today's reading world. 1966 is no exception for reading panacea "hawkers."
7. The remedial-reading instructor should assume a major role for studying and improving the administrative structure of the particular school system in which he works. Of all personnel, he should be in the best position to do so.
8. The remedial-reading instructor should be able to interpret, plan, supervise, and carry on research. Although classroom teachers should be involved in research activities, most are not equipped and do not have the time to digest or design on-going research projects.

If a person is to heed to any or to all the suggestions listed, then he must receive some degree of assurance that institutions of higher learning and state departments of education are ready and willing to assist and/or certify him as a remedial-reading instructor. Assured *excellence* must be the key to any program.

*Excellence: Its Limitations and Strengths*

Whenever excellence is to be achieved, limitations as well as strengths can be expected. However, there are certain guidelines which can be offered to any school or granting agency. Permit me to suggest a few:

1. The procedures and the details of the machinery necessary to prepare qualified remedial-reading instructors are not easy. Naturally, these will vary from institution to institution as well as from state to state.
2. State departments of education must decide whether they desire to certify remedial-reading instructors. If they elect to do so, then they should employ qualified reading specialists at the state level to help with the following:
   a. to interpret the requirements as "set forth" by the state certifying group;
   b. to assist in implementing any requirements mandated by the state;
   c. to choose a state-wide advisory committee which will participate in continuous evaluation of the effectiveness of any requirements mandated by the state for preparing remedial-reading instructors. The members of such a state-wide advisory committee should be representatives from the public schools, from institutions of higher learning which prepare remedial-reading instructors, and existing professional reading groups within the state.
3. Teacher-education institutions which desire to prepare remedial-reading instructors should make certain that they are adequately staffed and equipped to perform the task. One way to limit excellence is to be understaffed and non-equipped!
4. Institutions of higher education and state departments of education should utilize every reading-resource person who is willing to donate his time to developing and winning approval of established requirements. The only way to achieve excellence in requirements is to have excellence in team work.
5. Flexibility should be allowed when implementing guidelines.
6. Institutions of higher learning and state departments of education should "spell out" their concept of "remedial reading." Such action will be helpful to programing at the graduate-

1084

school level and to the school administrators who are selecting remedial-reading instructors.

7. Sufficient time should be provided for a remedial-reading program or for any requirement for remedial-reading instructors to be initiated, implemented, and developed before assessing its worth. Hasty decision-making may lead to disaster.

You may say that the suggestions outlined above are ones leading to excellence. They are. But, for whatever the degree of excellence you aim, you must recognize that the elements of time and human behavior serve as gauges for measuring limitations as well as strengths.

## Last Thoughts

*How can we eliminate the practice of using non-trained personnel for remedial reading instruction?* This question is not an easy one to answer. However, there are some "rights" and "wrongs" that are considered substantial.

*First,* the appointment of remedial-reading instructors should be made on the basis of professional preparation, experience, and competency. No one can disagree with this statement as a "first."

*Second,* professional standards should be "set" by a group representing students of reading and administrative-supervisory leaders. By doing so, terminology and guidelines for professional preparation, experience, and competency can be defined. This knowledge would be an asset to groups preparing remedial-reading instructors as well as to those in administrative leadership roles who are hiring these instructors.

*Third,* every remedial-reading instructor should have his responsibilities clearly defined prior to accepting his position. With clearly defined job specifications, there will be less on-the-job misunderstandings of what is to be done.

*Fourth,* for those institutions of higher learning which prepare remedial-reading instructors, continuous and systematic evaluation of their offerings should be a must. Such action will strengthen their professional contributions and can serve as guidelines for other institutions as well as for the public they serve.

By setting such sites, the status quo of the remedial-reading instructor will improve. No longer will it be a pressing concern to the reading world. It should not be. It would not be.

1085

Part III

## Author Index


A

Aaron, Ira E., 53, 123, 710
Alenick, Elizabeth, 683
Allen, Robert L., 827, 917
Alshan, Leonard M., 622
Anderson, Marion A., 124
Antley, Elizabeth Martin, 861
Arnsdorf, Val E., 714
Artley, A. Sterl, 1, 195, 454, 594
Ashlock, Patrick, 456
Austin, Martha Lou, 458
Austin, Mary C., 83

B

Bamman, Henry A., 3, 717
Barbe, Walter B., 128, 198
Barrett, Thomas C., 601, 624
Barton, Allen, 6
Beery, Althea, 462
Bell, Paul W., 801, 804
Betts, Emmett Albert, 199, 828
Bing, Lois B., 627
Black, Millard H., 864
Bloomer, Richard H., 205
Boehm, Charles H., 9
Bond, Guy L., 685
Bormuth, John R., 132, 830
Botel, Morton, 463, 720
Brendemuehl, Frank, 972
Bricklin, Patricia M., 975
Brzeinski, Joseph E., 466, 565
Bumpass, Faye L., 808, 812
Burrows, Alvina T., 207, 210, 470, 833
Bush, Clifford L., 212

C

Callaway, Byron, 978
Carline, Donald E., 214, 220
Carlson, Mildred A., 86
Carlson, Thorsten, 136
Carmer, Carl, 139
Carner, Richard L., 227
Carroll, Hazel Horn, 229
Caskey, Helen J., 230


Numbers refer to pages in Part II of the bibliography.

Catledge, Faye, 141
Catterson, Jane 472
Caudle, Jean I., 723
Chall, Jeanne, 697, 981
Chambers, Dewey W., 474
Chambers, J. Richard, 477
Childs, Sally, 233
Cleland, Donald L., 238
Cline, Marion Jr., 815
Clymer, Theodore, 479
Cohn, Stella M., 982
Colbath, Edwin H., 817
Cooke, Dorothy E., 242
Cooper, J. Louis, 984
Coulter, Myron L., 724, 726
Councill, Grace M., 629
Craig, Isabel, 986
Crosby, Muriel, 246
Cushenbery, Donald C., 248
Cutts, Warren G., 16, 988

D

Darling, Richard L., 251
Davis, Frank R. Jr., 481
Dawson, Mildred A., 144, 485, 993
DeAngelo, Rachel W., 253
Dechant, Emerald, 254
DeHirsch, Katrina, 995, 999
Deighton, Lee C., 834
Delacato, Carl H., 1006
Della-Piana, Gabriel M., 488
Dietrich, Dorothy M., 603
Docter, Robert L., 147
Downing, John, 259, 263, 920, 922
Duggins, Lydia A., 272
Durkin, Dolores, 568, 571
Durr, William K., 19, 490
Durrell, Donald D., 275, 279, 694

E

Early, Margaret J., 1008
Edward, Sister Mary, 838
Edwards, Thomas J., 865
Efron, Marvin, 631
Engler, David, 282
Enzmann, Arthur M., 605

F

Fareed, Ahmed A., 933
Fay, Leo, 87, 730
Feldmann, Shirley, 693
Figurel, J. Allen, 869
Flierl, Nina T., 285, 287
Freeland, Alma Moore, 90
French, Richard, 493
Fry, Edward, 935

G

Gallant, Ruth, 150
Gans, Roma, 152
Gelpi, Elsa, 937
Glass, Gerald G., 289, 575
Glim, Theodore E., 842
Gmeiner, Charlotte, 608
Goodman, Kenneth S., 818
Googins, Duane G., 1012
Gould, Lawrence N., 633
Grimes, Jesse W., 496
Groff, Patrick, 292, 300

H

Hagin, Rosa A., 303
Halcomb, James F., 305
Harris, Albert J., 870, 873, 941
Hartley, Helene W., 154
Harvilla, Lorraine, 55, 307
Heilman, Arthur W., 21, 313
Henderson, Edmund H., 732
Hendrickson, Harry C., 315
Herber, Harold L., 738
Hill, Margaret Keyser, 740
Hillerich, Robert L., 638
Holmes, Jack A., 499, 577
Hook, J. N., 25
Horrocks, Edna M., 56
Huck, Charlotte S., 750
Humphrey, Jack W., 59
Hunt, Lyman C., 316, 318, 319
Huus, Helen, 156, 159, 504, 753, 757

I

Iverson, William J., 28

J

Janes, Edith, 763
Jan-Tausch, James, 507
Jenkins, William A., 767
Jenkinson, Marion D., 509, 512
Jetton, Trula M., 161
Johnson, Marjorie Seddon, 1014

K

Karbal, Harold T., 61
Kasdon, Lawrence M., 821
Kelley, Marjorie L., 610
Kephart, Newell C., 1016
Kerfoot, James F., 515, 1019
King, Ethel M., 641
King, John, 63
Kluwe, Mary Jean, 325
Kress, Roy A., 1024
Kupress, Marie, 327

L

Lampard, Dorothy M., 1026
LaPray, Margaret H., 644
Larrick, Nancy, 768
Latham, Jean Lee, 163
Laycock, Frank, 1028
Lloyd, Helen M., 94, 875
Lucar, Jim, 68
Lundsteen, Sara W., 517

M

MacKinnon, A. R., 613
Malmquist, Eve, 944, 947, 1030
Manning, John, 97
Mariam, Sister, 337, 339
Martin, Marjorie, 340
Mason, George E., 519, 520
Massey, Will J., 771
Mazurkiewicz, Albert J., 343
McAnnich, Myrene, 647
McClellan, Grace, 100
McCollum, John A., 347
McCracken, Robert A., 523
McCullough, Constance M., 166
McDonald, Mary Jane, 1034
McGuire, Alice B., 169
McHugh, Walter J., 352
McKillop, Anne Selley, 172

McLean, Marjorie Jean, 1035
McNeil, John D., 691
Mergentime, Charlotte, 879
Metzler, Helen, 355
Mills, Queenie B., 880
Mishima, Toshiko, 952
Monroe, Marion, 356, 616
Morris, Joyce M., 954, 958
Morrison, Coleman, 358
Morrison, Ida E., 652
Moskowitz, Sue, 581
Muehl, Siegmar, 618, 654
Murphy, Helen A., 359, 527, 701

N

Natchez, Gladys, 362
Navon, Samuel, 960

O

Oyster, Mary M., 103

P

Painter, Helen W., 366
Perry, Mary Glenn, 660
Pivnivk, Isadore, 71
Pooley, Robert, 367
Popp, Helen M., 369
Poulos, W. T., 824, 885
Pratt, Edward, 529
Putnam, Lillian, 1038

R

Rambusch, Nancy McCormick, 586
Ramsey, Russell R., 370
Ramsey, Wallace, 32, 107, 377
Rawson, Hildred, 110
Rhodes, Brusilla H., 379
Roach, Eugene G., 1042
Robeck, Mildred C., 1046
Roberts, Dodd E., 775
Robertson, Anne McKillop, 963
Robinson, H. Alan, 533, 1051, 1053
Robinson, Helen M., 536
Robinson, J. Phil, 111
Robinson, Margaret A., 382
Robison, Eleanor, 965
Root, Shelton, L. Jr., 778

Rosenbloom, Alfred A. Jr., 663
Ross, Ramon, 386
Roswell, Florence G., 1057, 1061
Roughton, Edgar L., 73
Routley, Clare B., 388
Ruddell, Robert B., 176, 845, 851
Rutherford, William L., 667, 670
Ryckman, John N., 75

S

Sartain, Harry W., 390
Schiffman, Gilbert B., 1062
Schmidt, Bernard, 967
Senz, Edward H., 1071
Sheldon, William D., 399, 704, 886
Shepherd, David L., 182
Silvaroli, Nicholas J., 708
Simmons, John S., 781
Simpson, Hazel D., 538
Simula, Vernon L., 113, 541
Singer, Harry, 402, 544, 673
Sloan, Margaret, 116
Smith, Donald, 1073
Smith, Dora V., 888
Smith, Kenneth J., 709
Smith, Nila Banton, 35, 408, 588
Soar, Robert S., 411
Sochor, E. Elona, 789
Spache, George D., 1076
Sparks, J. E., 414
Sperling, Florence, 47
Sperry, Florence, 416
Stanchfield, Jo M., 184, 550
Strang, Ruth, 418
Strickland, Ruth G., 855
Sucsy, Margaret V., 120
Swanberg, Margaret, 121
Swauger, Velora V., 421

T

Taylor, Stanford E., 678
Theophemia, Sister Mary, 424
Thomas, Dominic, 900, 902
Thompson, Evelyn S., 553, 792
Tinker, Karen J., 1080
Townsend, Agatha, 680

U

Umstattd, Diana, 555
Urquhart, Donald, 189

V

Van Allen, Roach, 428
Veatch, Jeannette, 430, 437
Vilscek, Elaine C., 557
Vining, Elizabeth G., 190

W

Wagner, Rosemary E., 561
Wardeberg, Helen, 794
Whipple, Gertrude, 795, 799, 905, 907
Whitehead, Robert, 443
Wilson, Rosemary Green, 79, 858
Wirthlin, Lenore, 909
Witham, Anthony P., 48
Wittick, Mildred Letton, 911
Witty, Paul, 446
Wolfe, Josephine B., 50, 52, 563, 1083
Wonsavage, Elaine P., 451

Y

Young, Nancy, 971